August 27, 1956

How Railroads Use Paint . . . p. 27

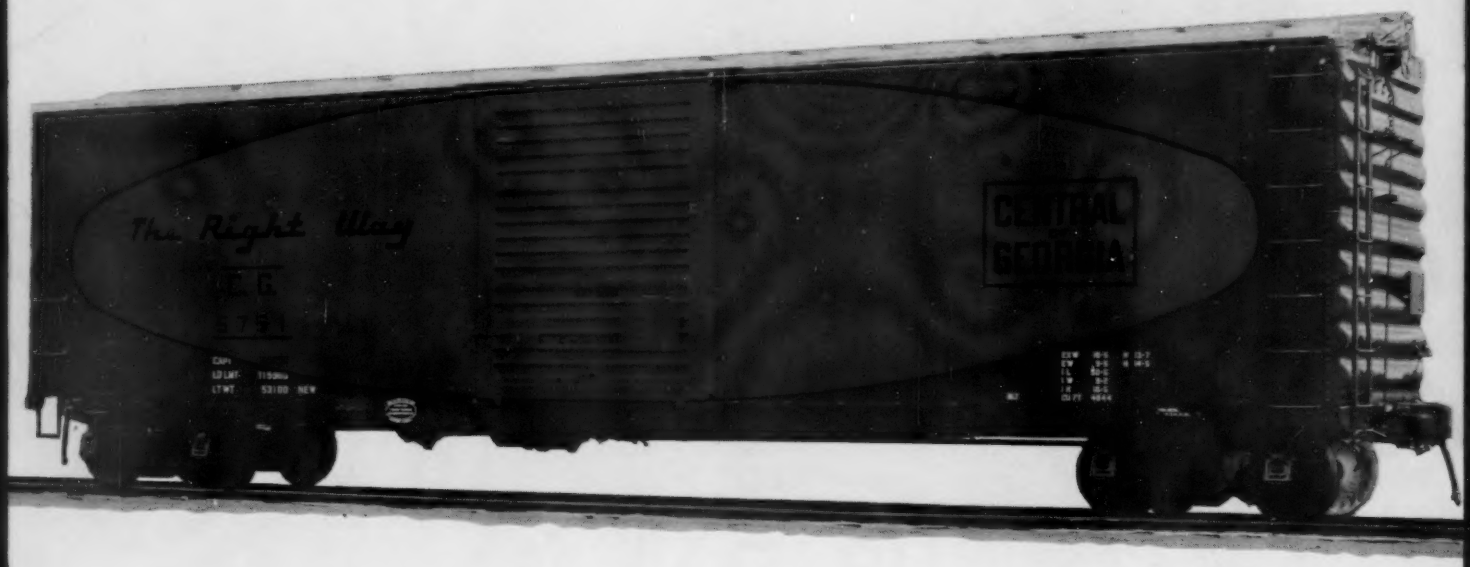
RAILWAY AGE

WORKBOOK OF THE RAILWAYS

THE INDUSTRY'S ONLY WEEKLY NEWSMAGAZINE

CENTRAL of GEORGIA

Exponent of aggressive railroading in the South



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9-foot wide
YOUNGSTOWN STEEL DOORS
on its new series of up-to-the-minute
ALUMINUM OVAL box cars

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EXIDE-IRONCLAD BATTERIES

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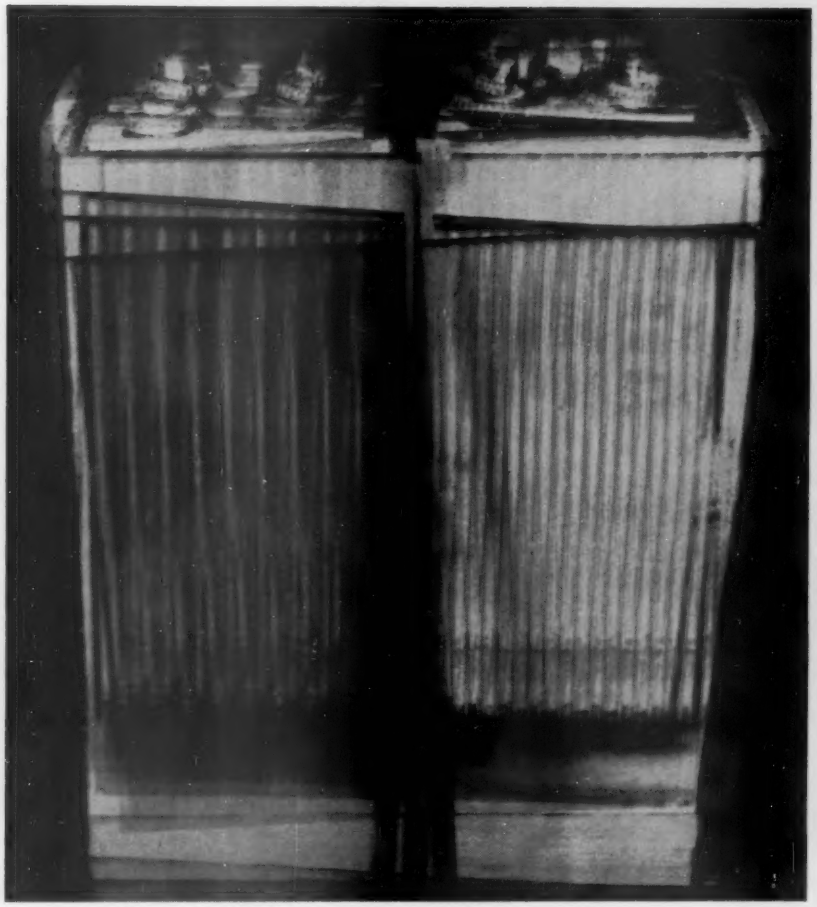
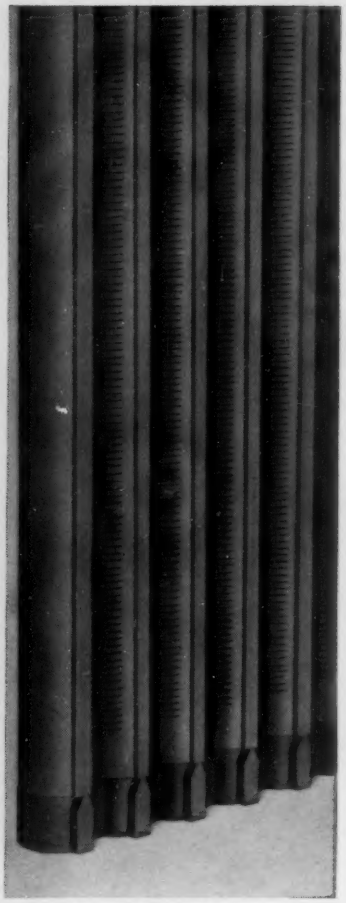


Actual photo taken during vibration torture test on an Ironclad Battery



Section of Ironclad positive plate

Vibration can't loosen active material — can't shorten battery life

BATTERY FOR RAILWAY CAR LIGHTING AND AIR CONDITIONING. Model EHL. Write for Bulletin No. 5168.

When a heavy duty storage battery gets the "shake treatment," battery life is literally at the mercy of the bond between the positive grid and the active material. Heavy shedding means short life.

But look what happens in an Exide-Ironclad Battery. Active material is held firmly captive inside the plastic power tubes. Hair-thin slits let electrolyte in, but keep active material from falling out. In prolonged vibration tests, this unique design has proved to be a valuable battery life stretcher. These findings are confirmed in the long, dependable service of Exide-Ironclad Batteries in typical high-vibration applications.

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2. ONE grease performs in many applications, eliminating the need for a variety of greases. It prevents the application of the wrong grease and possible damage to machinery.
3. Storage and handling problems are reduced to a minimum, resulting in greater economy. It is easier to protect a single container of ESSO MULTI-PURPOSE GREASE against contamination than several partially empty special-purpose drums.

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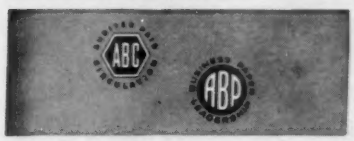

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Workbook of the Railways

Vol. 141, No. 9
August 27, 1956

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There must be public support . . .

. . . in the way of tax abatement or some other device to relieve the railroads' financial burden if commutation services are to be put on a practical basis. . . . p.7

For sale or lease . . .

. . . 406 New York Central passenger stations—another step to try to trim this road's passenger operation losses. . . . p.8

"Health ratings" of dining cars . . .

. . . are to be initiated by the Public Health Service next year for a two-year trial. . . . p.10

FORUM: Unity in a "PR" program . . .

. . . depends on a clear appreciation of the essential distinction between public relations and legislative relations. The former is an exercise in mass communications; a process of educating the millions whose individual beliefs go to make up public opinion. The latter is a matter of personal contacts—commonly called lobbying—with the objective of getting specific laws enacted. . . . p.23

Mechanical reefers by the hundreds . . .

. . . are now on the rails. Fruit Growers Express and associated lines have more than 1,000 in service. The most recent additions to that fleet have generating and refrigerating equipment in a compartment at one end of the car, insulated from the load. Protection can be adjusted for frozen foods or for fresh fruits or vegetables. . . . p.24

$17 million for paint . . .

. . . is the railroads' average yearly outlay. That's for materials—several times that much is spent for their application. Results? Protection of property; safer working conditions; lower operating and maintenance costs; a more pleasing "front" to show the public. For example . . .

Paint on fixed structures . . .

. . . serves these purposes despite the difficulty of getting it

Current Statistics

Operating revenues, six months	
1956	$5,293,274,781
1955	4,835,326,880
Operating expenses, six months	
1956	$4,040,560,806
1955	3,654,220,154
Taxes six months	
1956	$559,076,693
1955	523,450,895
Net railway operating income, six months	
1956	$510,512,938
1955	530,456,895
Net income, estimated, six months	
1956	$399,000,000
1955	416,000,000
Average price 20 railroad stocks	
August 21, 1956	99.24
August 23, 1955	95.37
Carloadings revenue freight	
Thirty-two weeks, 1956	22,699,518
Thirty-two weeks, 1955	22,426,196
Average daily freight car surplus	
Wk. ended Aug. 18, 1956	5,849
Wk. ended Aug. 20, 1955	5,674
Average daily freight car shortage	
Wk. ended Aug. 18, 1956	7,728
Wk. ended Aug. 20, 1955	12,627
Freight cars on order	
August 1, 1956	126,194
August 1, 1955	42,888
Freight cars delivered	
Seven months, 1956	38,533
Seven months, 1955	19,303
Average number railroad employees	
Mid-July 1956	1,032,859
Mid-July 1955	1,091,380

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX, THE ENGINEERING INDEX SERVICE AND THE PUBLIC AFFAIRS INFORMATION SERVICE. RAILWAY AGE, ESTABLISHED IN 1856, INCORPORATES THE RAILWAY REVIEW, THE RAILROAD GAZETTE, AND THE RAILWAY AGE GAZETTE. NAME REGISTERED IN U. S. PATENT OFFICE AND TRADE MARK OFFICE IN CANADA.

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Week at a Glance CONTINUED

properly applied and despite the severe conditions to which it very often is exposed. . . . p.27

Paint on rolling stock . . .

. . . is being used in new ways, giving much more individuality to each railroad's locomotives and cars—even the prosaic box car—without sacrifice of usefulness. . . . p.29

COMING: Next week . . .

. . . Results of the New York Central's tests of residual distillate fuel for diesel locomotives.

BRIEFS

GN electric operation . . .

. . . of 73 miles of main line across the Cascade range, including the 7.79-mile Cascade tunnel, ended August 1. The new tunnel ventilation system, which permits diesel operation straight through, will be described soon in Railway Age.

Interesting marriage . . .

. . . crops up in the piggyback field. Riss & Co., which has a $90,000,000 damage suit against the railroads pending in federal court, is among five motor carriers which will team up with the Pennsylvania and Katy in a new t-o-f-c service between three southwestern cities and Philadelphia, Pa.—Kearney, N.J. The ICC granted the necessary fourth-section relief last week.

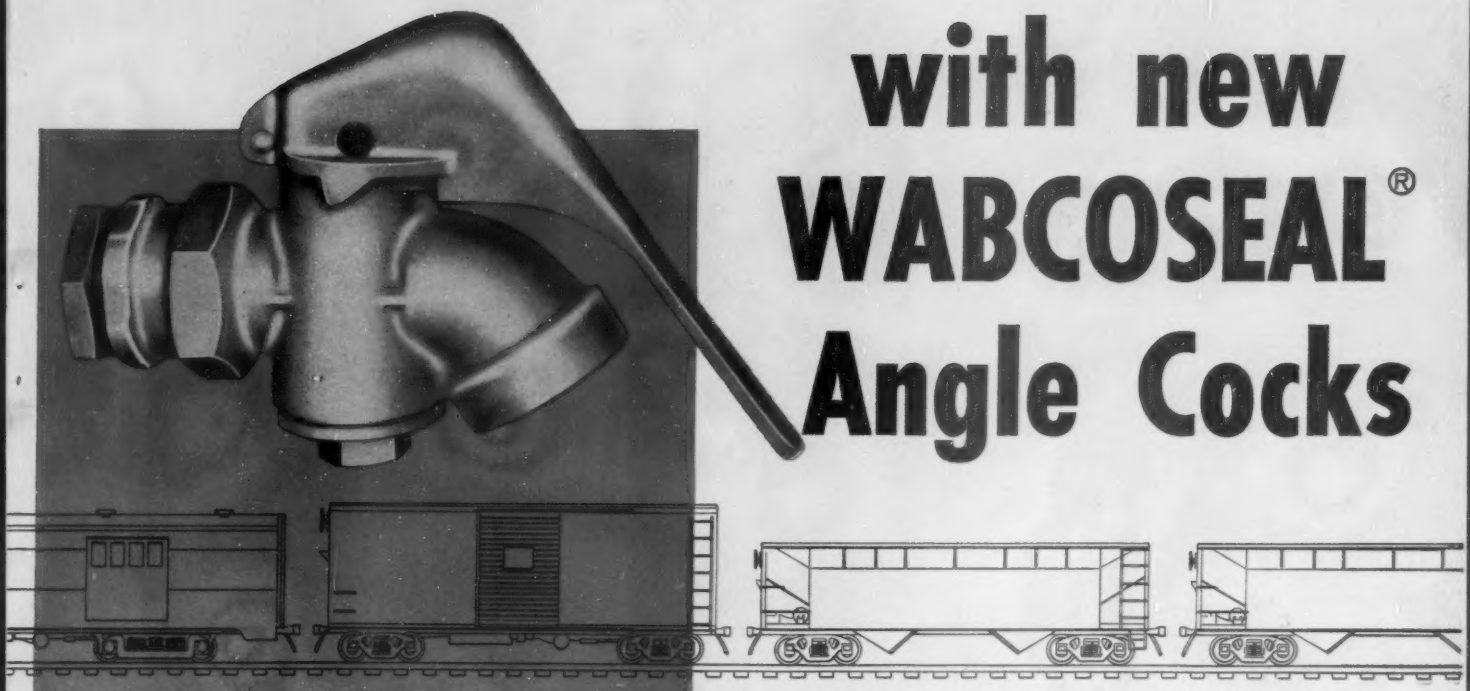
Enough iron ore is stockpiled . . .

. . . at furnace sites to keep steel production going for some time despite a seamen's strike that has halted many Great Lakes ore boats and forced a curtailment of Minnesota mining. Railroads may pick up "around-the-Lakes" ore traffic normally moved via water if strike lasts long enough to deplete stockpiles. Meanwhile, rail shipments of steel are approaching "normal."

Wage boost and 6 paid holidays . . .

. . . are among recommendations of a special board investigating a dispute between the Canadian Pacific and the Brotherhood of Railroad Trainmen. Wages would be increased 7% retroactive to April 1, with another 5% due June 1, 1957. Trainmen in turnaround service—up to a 30-mile radius—would receive added $2 a day as of September 1.

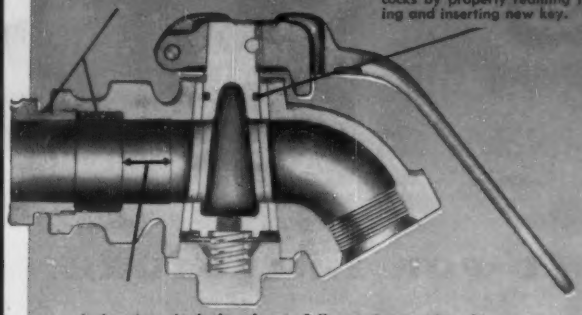
Stop those air leaks with new WABCOSEAL® Angle Cocks



FOR FREIGHT CARS:

Wabco compression ring grips pipe when nut is tightened to provide tight seal and strong clamping action.

"O" ring seals the key effectively through a wide degree of key wear. This seal can be used on old angle cocks by properly reaming the bushing and inserting new key.



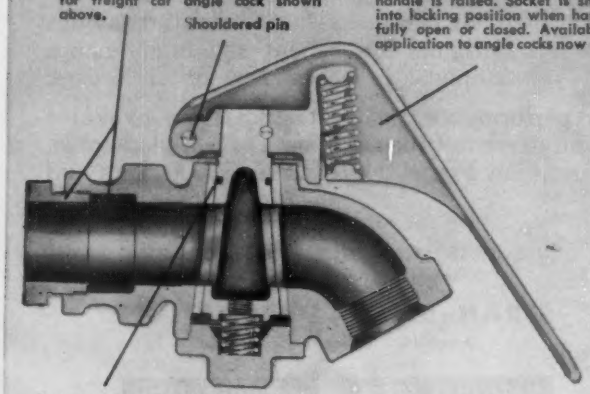
Brake pipe nipple length can fall anywhere within this range and still be perfectly sealed. Threaded nipple is not necessary but can be used if more convenient.

FOR PASSENGER CARS AND LOCOMOTIVES:

New Wabcoseal fitting is same as for freight car angle cock shown above.

Shouldered pin

Strong spring is compressed when handle is raised. Socket is snapped into locking position when handle is fully open or closed. Available for application to angle cocks now in use.



Sealed key is identical to freight car angle cock key shown above.

DON'T tolerate a high air leakage rate on your trains. Use the new Wabcoseal Angle Cocks for tighter seals.

The sealed key is new, with an "O" ring seal that stays tight through a wide range of key wear.

The brake pipe connection is new. A rugged Wabco compression ring replaces the old tapped thread. Tolerance for length of pipe nipple is now provided.

The spring-locking handle is new for passenger cars and locomotives. When the handle is removed to fully open or closed position a strong spring snaps the socket into locked position and keeps it there. A shouldered pin provides proper freedom of handle movement.

The sealed key and spring-locking handle are available for application to present angle cocks. See your Westinghouse Air Brake representative for more information.

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Railroad inspector giving N-S-F a final check as new Great Northern boxcar rolls off the road's final assembly line at St. Cloud.

Cars equipped with NAILABLE STEEL FLOORING enable progressive railroads to furnish shippers with Class A cars for all kinds of ladings—and safer cars, too, for shippers' personnel. Moreover, N-S-F is a flooring that can make for substantial savings over the years in both original investment and maintenance costs. It is equally economical in either new or used cars.

Pertinent, timely performance and cost studies are available from N-S-F representatives in Chicago, New York, Philadelphia, St. Louis, Cleveland, San Francisco, Minneapolis, Atlanta and Montreal.

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Commutation—What Lies Ahead?

Unless the public assumes a share in the responsibility for continuing the service, a Railway Age survey shows, the outlook is bleak — New cars and techniques, higher fares, only slow the tide

Thomas M. Goodfellow, president of the Long Island, tells the story of a crew member of one of his commuter trains who got himself a college education and a law degree during the free time he had between rush hours and now is a practicing attorney on the same schedule.

The tale points up what seems to be one of the toughest nuts for all railroads trying to operate commutation services. How are they to meet labor costs and sustain the financial burden of valuable equipment lying idle for all but a very minor part of each day?

That's not the only difficulty, but it's the one seemingly peculiar to commuter lines. The other well known problems of passenger service are also reflected in debit figures for commuter service—subsidized competition, lack of freedom in fixing fares, obstacles to abandoning unprofitable runs, staggering tax burdens on facilities, the transportation tax, municipal "catering" to competitors through construction of arterial highways, "fringe" parking lots and air and bus terminals.

But the task of finding use for equipment between 9 a.m. and 4 p.m. is most particularly that of the commuter lines.

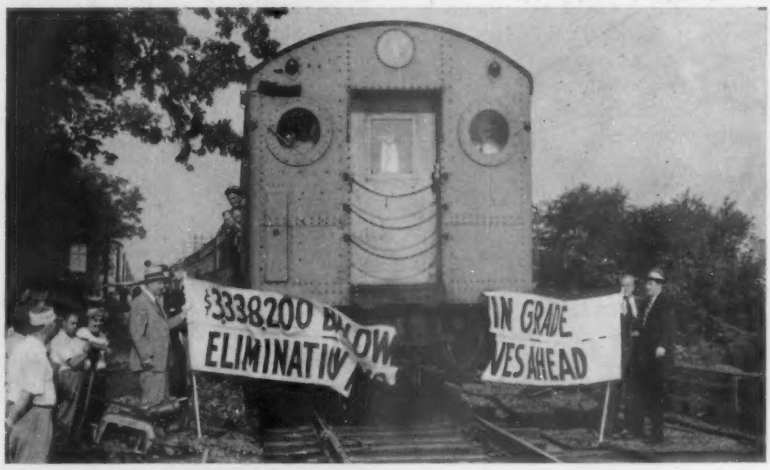
So gloomy is the picture under present day conditions, that Pennsylvania President James M. Symes said "I don't see any hope that private enterprise can offer good commutation service at a profit. It's going to require some form of subsidy in the way of tax relief, or help, or something where the cities and towns that benefit from commutation service help pay for it."

The "why" for this un-rosy view of the commutation picture is offered by the PRR's vice-president, passenger sales and service, J. B. Jones, who said: "The morning and evening [commutation] peaks . . . total at most three to four hours a day. Meanwhile, crew wages run on all day; taxes run on all day; the cost of owning and maintaining the cars, the roadbed and stations runs on all day; the service's share of the railroad's general expense runs on all day. Add up, at the day's end, what has come in during the two peaks, toss in what, if anything, has come in before, between, and after the peaks—and you almost inevitably find that it is far below the expenses . . ."

Further indication of the hopeless outlook of the business is suggested by the Southern Pacific, which serves 16,000 riders in the San Francisco area and "will withdraw from commutation service" when and if a proposed rapid transit system for the area materializes.

The Missouri Pacific, running one commuter train a day into St. Louis —at a daily loss of $200—admits "we have no plans for improving the service but, on the contrary, would be happy if it could be discontinued."

Meanwhile, like most other roads offering commuter services, the SP is doing its best to live with its unwelcome burden by providing new equipment and switching to diesel operations. It strives mightily to maintain pleasant relations with its riders through such devices as distributing cards explaining the cause of service delays, the bane of commuter operations. The humorous



Milestone Passed in LIRR Crossing Project

First phase of $3,338,200 grade crossing elimination job at Baldwin is completed as Long Island passenger train breaks through banner and swings onto temporary tracks skirting construction site. When project, eliminating three road crossings, is completed by end of 1957, 13 miles of LIRR from Jamaica through Baldwin will be elevated. Holding banner are (left to right on left) A. H. Patterson, Nassau County executive, and E. P. Larkin, Hempstead town supervisor, and (right) M. E. Goul, New York Public Works Department, and T. M. Goodfellow, LIRR president.

touch is usually sought but there are times when Claude E. Peterson, vice-president, passenger traffic, has to append such comments as this to the explanations:

"We don't feel that [delay] was an occasion for humor. I'm very sorry you were late and I apologize for the inconvenience."

Higher fares to get more revenues are the best solution to its commutation problems, according to the Illinois Central, which "celebrated" a century of the service July 21. It now has pending before the Illinois Commerce Commission an application for a substantial boost in commuter fares.

George M. Crowson, assistant to the president, says the IC will continue to provide commuter service "so long as there is any prospect of making it pay its way." The road has made a "very comprehensive study of re-casting the entire commutation fare structure" and is continuing it although it plans no immediate changes, he reports. Similar studies on the Pennsylvania and Rock Island reportedly have not reached the point where conclusions could be announced.

Fare rises are, of themselves, no solution, Earl T. Moore, president of the Jersey Central believes. He said that just "to break even on an out of pocket basis" his road would need "an increase of 88% in commuter fares." Still, he said, this would be "hardly more fantastic than abandonment of commuter service altogether," as was proposed by the New York Central as it sought to cut operating losses on its West Shore Line. This is another railroad plan held up by a regulatory body although it appears the situation may be compromised through an approximate 50% cut in the number of trains operated.

The Canadian Pacific, handling a relatively small commuter load in the Montreal area, reports the service "is not self-supporting" despite a 75% hike in fares since 1954 and with a further 25% boost as of May 1, 1957, already authorized.

Two Approaches—Some roads attack the problem of unutilized equipment and manpower the way the Erie does, by trying to cut operating expenses to the bone. The Reading, while not ignoring this practice, however, goes at the problem by campaigning to stimulate off-hour rail travel and thus put the otherwise idle crews and trains to work.

The Erie says commutation service costs it $2.5 million a year in direct out of pocket costs, but also records an awareness of public responsibility: "It is obvious that some means of mass transportation must be provided to enable people to go back and forth to work."

The issue becomes, the Erie thinks, one of "whose obligation it is to pay for the service. Everyone is willing, of course, to pass it on to the other fellow—and at the moment the railroads are holding the bag" and are forced to pass their losses on to other services, to the stockholders and shippers of freight.

Tax abatement would help the situation, the Erie contends, but not entirely. According to George C. Frank, assistant to the president, "while there may be some justification for subsidizing commuter service directly or through tax relief, we believe it should be done only to the extent that the railroads are able to reach the break even point and not for the purpose of making a profit. The ideal solution, of course, would be to perform the service for some public authority on a cost-plus basis."

The Long Island, whose main business is commutation, has achieved increasing stability through tax concessions and other benefits permitted under a special law, but it still had to raise its commutation fares recently.

And the LIRR still feels that "some of the costs of providing economical suburban and commuter rail service must be lifted from the railroads if this vital service is to continue."

Mr. Moore of the CNJ voiced the same thought, noting that "some form of public support must come to the aid of the private companies," while PRR Vice-President Ralph C. Champlin said "we definitely believe there has got to be substantial tax relief on all passenger facilities."

Diesels, RDC's and Gallery Cars—Along with the SP, the Chicago & North Western and other roads look to the diesel locomotive to cut commuter costs, the C&NW having completely dieselized its suburban service on May 11, where 35% of the service was under steam power on January 1.

Gallery coaches for commuters were introduced by the Burlington, which shows a steady rise in suburban service, and the North Western; and the SP is adding two-level lightweight cars to its commute fleet. The Baltimore & Ohio turned to RDC's in its Pittsburgh and Washington-Baltimore services while the Boston & Maine had 34 additional cars of this type on order at mid-year with expectations of further reducing terminal costs. CPR, which added 40 lightweight coaches to its operations three years ago, reports it is thinking of trying the rail diesel cars. On the other hand, the Illinois Central has, over the years, modernized its 30-year-old equipment, and has "no plans" for new purchases at the present time.

NY Central to Sell, Lease 406 Stations

Perlman says it's another attack on passenger losses—Grand Central Terminal and depots not wholly-owned are excluded

The New York Central has offered for sale or lease several hundred of its passenger stations — including such large depots as those at Buffalo and Toledo. Only the Central's facilities on Manhattan Island in New York City (including Grand Central Terminal) and those not wholly-owned by the road are excluded.

Alfred E. Perlman, president of the 10,700-mile system, commenting that the move is an attempt to slice the Central's multi-million dollar passenger deficit, said the road would lease back whatever station space it needs for its own operations.

The step follows close on the heels of the Central's application with other Eastern carriers for a 45% hike in first class passenger fares and a 5% boost in coach fares (Railway Age,

(Continued on page 10)

RAILWAY MARKET OUTLOOK THIS WEEK

a RAILWAY AGE Workbook Page

Carloadings Up.—Loadings of revenue freight in the week ended August 18 totaled 769,624 cars, the Association of American Railroads announced on August 23. This was an increase of 54,388 cars, or 7.6%, compared with the previous week; a decrease of 6,077 cars, or 0.8%, compared with the corresponding week last year; and an increase of 91,000 cars, or 13.4%, compared with the equivalent 1954 week.

Loadings of revenue freight for the week ended August 11 totaled 715,236 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, August 11

District	1956	1955	1954
Eastern	112,649	122,386	107,669
Alleghany	126,577	150,030	123,550
Pocahontas	64,972	61,337	50,285
Southern	125,803	121,223	113,931
Northwestern	105,389	134,578	118,518
Central Western	122,747	124,447	116,028
Southwestern	57,099	56,250	55,291
Total Western Districts	285,235	315,275	289,837
Total All Roads	715,236	770,251	685,272
Commodities:			
Grain and grain products	54,830	55,118	55,436
Livestock	8,548	6,329	7,139
Coal	133,106	127,142	112,784
Coke	7,721	12,366	6,880
Forest Products	49,321	48,864	39,171
Ore	58,502	82,348	64,132
Merchandise l.c.l.	59,705	65,148	62,357
Miscellaneous	343,503	372,936	337,373
August 11	715,236	770,251	685,272
August 4	660,287	760,387	667,592
July 28	649,806	790,426	683,617
July 21	648,492	781,908	684,281
July 14	619,988	794,138	694,545
Cumulative total, 32 weeks	22,699,518	22,426,196	20,486,695

In Canada.—Carloadings for the seven-day period ended August 7 totaled 88,352 cars, compared with 129,711 cars for the previous ten-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
August 7, 1956	88,352	30,989
August 7, 1955	78,626	30,541
Cumulative Totals:		
August 7, 1956	2,596,906	1,062,014
August 7, 1955	2,330,888	971,451

New Equipment

FREIGHT-TRAIN CARS

► *July Orders, Deliveries In Mild Decline.*—New freight cars ordered in July totaled 2,642, compared with 2,859 in June and 18,007 in July 1955, ARCI and AAR report; deliveries during the month declined to 5,344, compared with 5,550 in June and 2,192 in July 1955; August 1 backlog was 126,194 cars, compared with 129,409 on July 1 and 42,888 on August 1, 1955.

Type	Ordered July '56	Delivered July '56	On Order August 1, '56
Box—Plain	17	3,071	44,063
Box—Auto	0	0	2,100
Flat	0	112	5,068
Gondola	327	222	12,668
Hopper	1,100	985	39,488
Covered Hopper	435	375	6,069
Refrigerator	0	82	6,349
Stock	0	0	0
Tank	503	476	7,452
Caboose	0	15	169
Other	260	6	2,768
TOTAL	2,642	5,344	126,194
Car Builders	1,374	3,117	59,048
Company Shops	1,268	2,227	67,146

► *Delaware & Hudson.*—Ordered 65 70-ton covered hoppers from Greenville Steel Car; estimated unit price, $8,330; delivery, March 1957; also ordered 10 70-ton covered hoppers from Pullman-Standard; estimated unit price, $8,250; delivery, December, 1956.

► *Pacific Fruit Express.*—Reported that 100 of total 2,000 refrigerator cars ordered from own shops last year—as disclosed in this column Dec. 12, 1955—are being equipped with Carrier Corporation refrigeration systems; installation to be completed in January.

LOCOMOTIVES

► *Virginian.*—Plans to spend $25,504,000 for locomotives, freight cars and other facilities between now and early 1958; list includes 12 3,300-hp electric locomotives; 8 1,600-hp diesel units; 500 50-ton hoppers; 2,000 70-ton hoppers; 35 pulpwood cars; 25 cabooses; 1 diesel-electric towboat; work on pier at Sewells Point, Va.

► *Order Backlog Up.*—AAR reports Class I railroads had 849 new locomotive units (822 diesel, 12 electric, 15 gas turbine) on order as of August 1, an increase over the backlog of 796 units on order as of July 1; on August 1, 1955, the locomotive order backlog was 467 units, all diesel. In the first 7 months of 1956 the roads placed in service 905 new units (all diesel), compared with 670 units (all diesel except 10 electric) in the same period of 1955; installations in July alone this year totaled 120 diesel units, up from 71 in the like month a year ago.

LOCOMOTIVES—OVERSEAS

► *Southern & Central of Peru.*—Has ordered six 1,800-hp DL 500 "World" diesel-electric locomotives from Alco Products Inc., for service from seacoast to Andes Mountain elevations up to 14,666 feet.

(Continued from page 8)
Aug. 20, p. 8). That application is still pending before the Interstate Commerce Commission.

The Central announced that its passenger deficit last year totaled $37,788,353 of which, it said, a substantial part is attributable to the costs of operating passenger terminals, including their maintenance and taxes.

There are 406 terminals involved in the offer and Mr. Perlman said the road would consider any proposal contemplating sale or long-term lease.

Competitive bidding would be required in all negotiations, the road said, but it explained that detailed real estate figures would not be developed until *bona fide* requests are received by the Central from interested parties.

Excluded from the offer, the Central reported, are these stations: those in Manhattan; South Station, Boston; La Salle st., 63rd st. and Central Stations, Chicago; Union Terminal and Winton Place, Cincinnati; the union depots at Cleveland, Columbus, Dayton, Indianapolis, St. Louis and Troy, N.Y.; Windsor and West Stations, Montreal; Parish & Dearborn st. Station, Black Rock, N.Y.; and those at Carmi, Ill., Englewood, Kensington, Pekin and Peoria; Crestline, Ohio, and Marion; Grand Rapids; Lafayette, Ind., and Union City; and Little Ferry, N.J.

Health Service to "Rate" Dining Cars

In a move to improve sanitation on railroad dining cars, the Public Health Service next January will begin placarding as "Grade A" those cars which pass official inspections with a rating of 95 or better.

The step will mark the beginning of a two-year trial period. The Grade A placards will be placed only in food preparation areas in what PHS officials say is a move designed to serve as a "stimulant" for galley crews and waiters to achieve and hold the Grade A rating.

Dining cars already have a good record, the national average for all cars being 90.2. The average has been going up for several years, and one major road, the Erie, achieved a perfect 100 rating for all its diners in 1953.

But PHS reports the national average now shows a tendency to level off, and the new grading plan has been worked out with dining car officers as an incentive to further improvement.

Next Step—After the two-year trial period, PHS officials say, the plan will be examined to determine whether it should be continued or, possibly, made more rigid. Performance during the period will determine.

In event the improvement trend doesn't step up, PHS may begin posting Grade A, B or C placards in dining areas in open view to patrons. This would be similar to a system many state and local health departments now use to rate restaurants.

PHS officials agree it is difficult to pinpoint reasons why some dining cars, and even entire railroads, can lag behind pacesetters. They point out that basic car construction is a big factor, especially on older cars where open seams or cracks permit food particles or grime to accumulate. Perhaps even more important, they say, is the matter of "attitude," where supervisory short-comings can lead to faulty sanitation practices in diner operations.

REA Bids For 15% Surcharge in East

Another angle of attack on passenger-service deficits in the East took shape last week when the Railway Express Agency asked the ICC to authorize a 15% surcharge on l.c.l. shipments within Eastern territory, including the Pocahontas region.

Specifically, REA requested the commission to institute an investigation of the adequacy of express rates and charges in the East, and urged a decision on the surcharge proposal with "reasonable expedition."

Shipments of milk and cream, newspapers and human remains would be exempt from the increase.

REA's petition said the increase is being sought "so as to reduce losses incurred by railroads in transporting express traffic" in Eastern territory.

The petition stated that the express deficit after operating expenses, rents and taxes "exceeded $22 million" for 16 major eastern roads. It said such losses accounted for a part of the passenger-service deficit in that territory.

"During the years 1952 to 1955, inclusive, the aggregate passenger-train deficits of Eastern railroads exceeded $1 billion and absorbed 37.1% of the freight service net railway operating income of these carriers," the petition said.

"Continuing efforts have been

Suburban Terminal Envisioned in NHRR Lease Plan

Sale of its existing passenger and freight facilities at New Rochelle, N. Y., to a development group would enable New Haven to establish major passenger terminal in place of station for New York commuters. Under present plans, station would be incorporated in $17,000,000 shopping center-hotel project pictured above (Railway Age, July 9, p. 9). Road would sell its property for $1,000,000, spend half that sum to buy land for new freight yard and would lease passenger facilities from developers. New Haven board was preparing to act on plan at press time for this issue of Railway Age. Work on project could start this fall.

made during this period to increase passenger-train revenues, and to reduce passenger-train costs. Notwithstanding these efforts, it is estimated that for the first five months of 1956 this passenger deficit is substantially greater than before."

REA went on to say that express rates and charges heretofore authorized for national application are inadequate for Eastern roads; that express service is among the most expedited and highly specialized operations performed by railroads and should be priced so as to more nearly meet its share of passenger-service expenses.

Mr. Hammell's Views—REA President A. L. Hammell said as the petition was filed that his agency has undertaken everything a prudent management should to improve production. He said this included acquisition of modern materials handling equipment, rearrangement of terminal facilities, building new facilities, purchase of new refrigerator cars, and replacement of automotive equipment.

Without the $70 million improvement program begun in 1954, the express deficit would have been greater, Mr. Hammell said.

REA Sets Up One-Carrier Service to West Germany

Illustrating link-up of express network in United States with ocean shipping, Railway Express Agency trucks are shown above at United States Lines' pier in New York City with passenger liner in background. REA has announced start of through, international surface transport system using single bill of lading covering shipments between interior origin and destination points. Service now connects United States and West Germany but is expected to be extended to other overseas points.

Union Wins Mechanical Group on P&LE

Mechanical department foremen and supervisors of mechanics on the Pittsburgh & Lake Erie—previously not represented by any organization—have voted in favor of representation by the American Railway Supervisors Association.

The National Mediation Board has so certified following an election on the property. According to the board, 53 of the 73 eligible foremen-supervisors voted in favor of affiliation with ARSA. Nineteen other ballots were ruled "void."

Meanwhile, on the Delaware & Hudson, the Mediation Board announced it has withdrawn from a case similar to that on the P&LE at the request of ARSA.

Lasher Aide Cited For Army Traffic Work

Gilmer B. Randolph of Alexandria, Va., has been awarded an Army certificate in recognition of "sustained superior performance of duty" as civilian deputy to Brig. Gen. E. C. R. Lasher, assistant chief of transportation (traffic).

The award was made by Maj. Gen. Paul F. Yount, Army Chief of Transportation. Mr. Randolph has been associated with the Army Transportation organization since 1940, having been employed formerly in the traffic department of Standard Brands, Inc.

Another award was made by Gen. Yount to R. L. Guyotte, Jr., also of Alexandria, for "outstanding loyalty and efficiency" in performance of duties as consultant to the Army Transportation Corps. Mr. Guyotte additionally is chairman of the all-service committee organizing a single traffic department for the Defense Department and has been assigned to study the Hoover Commission transport recommendations which apply to the Army.

Steel Strike Hurt Car Repair Ratio

Car repair and upgrading programs of Class I railroads lost ground in July when the steel strike forced curtailment of shop forces on many roads. As a result, the number of cars undergoing or awaiting repairs on August 1 was 4.5% of ownership, compared with 3.9% on July 1.

This situation was pointed up by figures contained in the latest issue of the "National Transportation Situation," published by Chairman A. H. Gass of the AAR's Car Service Division. Mr. Gass said that with the strike now over, railroads may be expected to resume their intensified repair programs as steel supplies will permit.

The CSD chairman said that serviceable cars in the Class I fleet totaled 1,626,184 cars on August 1, compared with 1,634,741 one month earlier and 1,612,476 on August 1,

PRR Train Draws Crowd at Outing

To help handle crowd of almost 30,000 at family outing of Kettering, Ohio, plant, Delco Division of General Motors rented this Pennsylvania train to shuttle between auto parking lot and activity center. Train proved a top attraction in its own right and handled about 5,000 persons, some, who had never ridden a train before, using it "just for the ride."

1955. During the month of July, a total of 17,613 cars were returned to service after receiving heavy repairs.

Financial

Murchison Leads Group in Purchase of Bamberger

A syndicate reportedly headed by C. W. Murchison, who was alined with Robert R. Young in the New York Central proxy fight, has purchased the Bamberger Railroad from Julius M. Bamberger, owner and president. The purchase price was not disclosed. The 36-mile Bamberger line connects Ogden and Salt Lake City, providing freight and switching service.

Minneapolis & St. Louis.—*Stock Option.*—The ICC has approved this road's proposed stock option plan, under which a total of 20,000 shares of stock will be optioned among officers and key employees. The commission ruled that no more than 5,000 shares can be issued and sold to any one participant.

Southern Pacific.—*Bond Issue Slated.*—The board of directors of this road approved issuance of $35,000,000 of first mortgage bonds, series H, to mature October 1, 1983, proceeds of which are to be used with other funds for capital expenditures aggregating $83,820,000, made or scheduled for 1956, and not otherwise financed. Following ICC approval, the new bonds would be sold at competitive bidding.

Valdosta Southern—*Control*—Owens-Illinois Glass Co. has asked the ICC to authorize its acquisition of control over this 27-mile road and the 13.6-mile Marinette, Tomahawk & Western. Both lines are subsidiaries of National Container Corp., which is expected to merge with Owen-Illinois.

Dividends Declared

BOSTON & ALBANY.—$2, payable September 29 to holders of record August 31.

ERIE & PITTSBURGH.—7% preferred, 87½¢, quarterly, payable September 10 to holders of record August 31.

KALAMAZOO, ALLEGAN & GRAND RAPIDS.—$2.90, semiannual, payable October 1 to holders of record September 15.

SOUTHERN PACIFIC.—75¢, quarterly, payable September 17 to holders of record August 27.

VIRGINIAN.—common, 75¢, quarterly, payable September 14 to holders of record August 31; 6% preferred, 37½¢, quarterly, payable November 1, February 1, 1957, May 1, 1957, August 1, 1957 to holders of record October 17, January 17, 1957, April 16, 1957, July 17, 1957

Organizations

American Association of Passenger Rate Men.—The national meeting will be held in the Emerson Hotel, Baltimore, Md., September 13-15. A. R. Seder, vice-president, finance, accounting, taxation and valuation, AAR, and J. J. La Monica, manager, passenger station services of the Pennsylvania, will address the meeting on the morning of the 14th.

American Iron & Steel Institute.—Will, through its Technical Committee on Wrought Steel Wheels and Axles, assume the work done hitherto by the Technical Board of the Wrought Steel Wheel Industry, under the direction of Malcolm S. Riegel, consulting engineer.

American Short Line Railroad Association. — 43rd annual meeting will be held in the Brown Palace Hotel, Denver, September 25-26.

International Council of Industrial Editors. — Ted O'Meara, editor of the Chesapeake & Ohio's monthly publication, Tracks, since 1937, was elected vice-president of the council at its recent 15th annual conference in Los Angeles.

Military Railway Service Veterans.—The 11th annual reunion will be held at the Hotel Muelebach, Kansas City, Mo., September 21-23.

National Association of Railroad and Utilities Commissioners.—Elected the following officers at its annual meeting: President, J. C. Hammer, Tennessee; first vice-president and chairman of the executive committee, E. R. Thornton, New Hampshire; second vice-president, C. H. Heltzel, Oregon; general solicitor, A. L. Roberts, Jr., Washington, D.C.; secretary-treasurer and assistant general solicitor, Everette Kreeger, Washington, D.C.

National Defense Transportation Association.—Will give its seventh annual award for contributions to military transportation to Donald W. Douglas, president, Douglas Aircraft Company, at the annual meeting at Salt Lake City, October 17.

National Safe Transit Committee, Porcelain Enamel Institute.—Paul T. Glaman, recently with the American Automobile Association, has been appointed to handle administrative activities, with headquarters in Washington.

National Safety Council.—Annual meeting of the Railroad Section will be held in the Morrison Hotel, Chicago, October 22-26.

New England Shippers Advisory Board.—Will meet in the Equinox House, Manchester, Vt., September 19-21. Gardner A. Caverly, president of the Rutland, will address the breakfast session September 21.

Transportation Association of America.—Louis S. Rothschild, undersecretary of commerce for transportation, will discuss "New Dimensions in Transport Policy" at the Midwest Institute to be held by the TAA at Kansas City September 25. Jarvis Langdon, Jr., chairman, Association of Southeastern Railroads, and A. Robert Shaw, president, Kansas City Terminal, will be among participants at the institute. "What Legislation Should Be Enacted in 1957 to Assure a Better Transport System?" will be one topic discussed.

Supply Trade

H. S. Clarke has been named sales manager, railway division, of the **Dana Corporation. J. A. Lindberg** will continue as special railway representative.

Robert Schey, formerly general superintendent car department of the Nickel Plate, has joined the railroad sales division of **Rust-Oleum Corporation,** heading up sales in the eastern railroad sales region, at Cleveland.

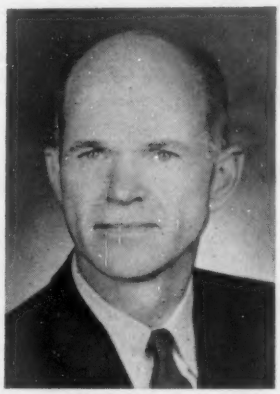
Norman A. Price, vice-president, sales, of **The Colson Corporation,** has been promoted to executive vice-president.

Allan C. MacDonald has joined the **Canadian Car & Foundry Co.** as executive vice-president. He was formerly managing director of **Canadian Pacific Steamships, Ltd.**

C. F. Hammer, assistant director of engineering, **Air Brake Division, Westinghouse Air Brake Company,** has been appointed director of engineering. **W. B. Kirk,** engineer of development and head of the test section, has been advanced to chief engineer.

Standard Car Truck Company has appointed **James H. Shaffer** of the **Seaboard Railway Equipment Company,** Butler, Pa., as its sales representative and agent in the northeastern seaboard area.

J. A. Holmes, chief chemist, **National Aluminate Corporation,** has been elected president, succeeding **H. A. Kern,** who continues as board chairman. **Frank H. Thorne** has retired as senior vice-president, but retains his post as vice-chairman. **Paul E. Dempsey** has been advanced to manager of railway service, succeeding **R. G. Bielenberg,** promoted to assistant vice-president.



DR. FRANKLIN E. LOWANCE, who has been director of research and engineering of Westinghouse Air Brake Company's Union Switch & Signal Division, has been elected vice-president, research and engineering.

Robert C. Schulze, vice-president, **P. & M. Co.,** has been elected president, succeeding **Max K. Ruppert,** whose election as president of **Poor & Co.,** was announced in the June 11 issue, p. 16. **Charles J. Miller,** assistant eastern manager of P. & M. Co., has been elected vice-president at New York.

Robert C. Schulze

V. H. Peterson, vice-president, railroad sales, **Fairbanks, Morse & Co.,** transferred to vice-president, engineering, to replace **J. F. Weiffenbach,** resigned. **James G. Graham,** eastern regional manager, railroad sales, transferred to Chicago as general manager, railroad sales.

Allis Chalmers Manufacturing Company has appointed **M. J. Rotroff** transportation sales manager, tractor group, at Milwaukee, Wis., and **K. L. Schultz** and **Dewey W. Lang** transportation sales supervisors. All have been in the Buda railroad division. **C. L. Thompson** has been named material handling sales manager, and **D. Kuethe** assistant material handling sales manager of the Buda division, tractor group at Milwaukee. Mr. Thompson was in charge of material handling sales for the division, and Mr. Kuethe sales representative, material handling, central region.

OBITUARY

Albert C. Smith, 69, service engineer with General Railway Signal Company, died August 13 after a prolonged illness.

Ralph N. Chipman, 70, who retired early this year as manager of the weed killer department of General Chemical Division, Allied Chemical & Dye Corporation, died at his home in Plainfield, N.J., August 18.

Railway Officers

CENTRAL OF GEORGIA. — O. D. Page, assistant superintendent, Columbus division, Cedartown, Ga., named superintendent, Savannah division. **Herbert L. Bishop, Jr.,** general road foreman of engines, appointed to succeed Mr. Page as assistant superintendent, Columbus division.

C. E. Free appointed general superintendent, Central of Georgia Motor Transport Company, Macon, Ga., succeeding the late **Gordon L. Wait.**

E. B. Shearouse, commercial agent, Cincinnati, Ohio, appointed assistant general agent, Washington, D. C., succeeding **A. J. W. Handwork,** resigned.

CHESAPEAKE & OHIO.—A. S. Richardson has been appointed bridge engineer, Southern Region, Richmond, Va., replacing **L. L. Shirley,** retired. Appointments also include **J. E. Belcher** to chief of commerce bureau in the merchandise freight department, Richmond; **R. L. Gentry** to general agent, passenger department, Richmond; **J. N. Ikner** to trainmaster, Detroit; and **A. Sidney Morton** to coal traffic sales manager, Boston.

K. T. Reed, assistant general manager, appointed assistant regional manager, Northern region, with headquarters as before at Detroit. His former position has been abolished. **P. G. Shepherd** appointed assistant to regional manager, Central region, with

(Continued on page 34)

Lackawanna's position on the passenger service question

LACKAWANNA believes that railroad passenger service continues to have an important place in the field of American transportation.

LACKAWANNA believes that a large segment of the traveling public prefers the safety, dependability, friendliness and relaxed comfort which Lackawanna service provides.

LACKAWANNA believes that so long as moderate prices result in patronage sufficient to justify Lackawanna mainline coach, sleeper and dining service between points in its territory, it should strive to maintain that service at the highest level of quality of which it is capable.

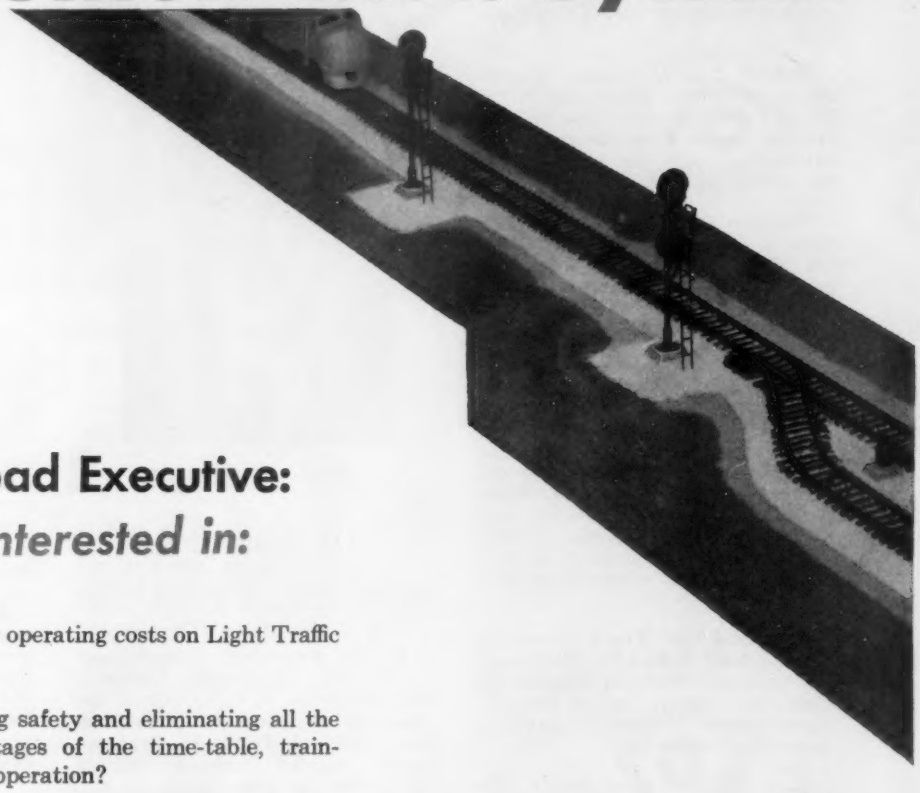
Accordingly, the Lackawanna has not joined in current proceedings to substantially raise basic passenger fares. Its 18,000 employees solicit passenger business and assure travelers of a warm welcome.

LACKAWANNA RAILROAD

DL&W States its Case

Reassuring its riders it had no part in application by several other eastern roads for increases in first class and coach fares (Railway Age, Aug. 20, p. 8), Lackawanna ran this plain-talking advertisement in key New York, New Jersey and Pennsylvania cities' daily newspapers last week.

NEW UNION C.T.C. System



Mr. Railroad Executive:
Are you interested in:

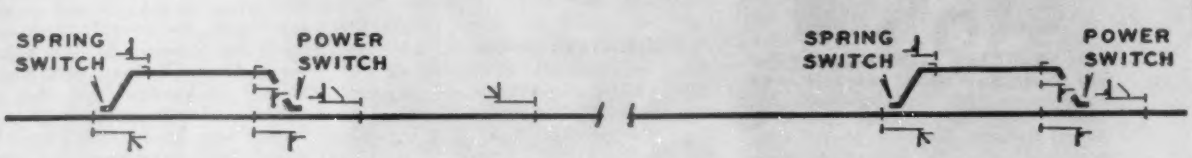
1. Reducing operating costs on Light Traffic lines?
2. Increasing safety and eliminating all the disadvantages of the time-table, train-order method of operation?
3. Improving train operation with faster schedules and fewer delays?
4. Obtaining the most modern, efficient and flexible traffic control system at the lowest possible installed cost?

If your answers are "yes," then get complete information on this new UNION C.T.C. System for Light Traffic Lines from our nearest district office. Ask for Bulletin No. 168.

MODEL showing the basic signaling arrangement for UNION Light Traffic C. T. C. System. This new low-cost C. T. C. system provides all the basic functions of the more elaborate systems, but can be installed at a cost comparable to automatic block signaling. It complies with I.C.C. regulations and the A. A. R. Standard Code. Furthermore, the system can be expanded to accommodate future changes in traffic.

Two installations similar to this basic C. T. C. system have been in service for several years and are giving efficient and flexible traffic control.

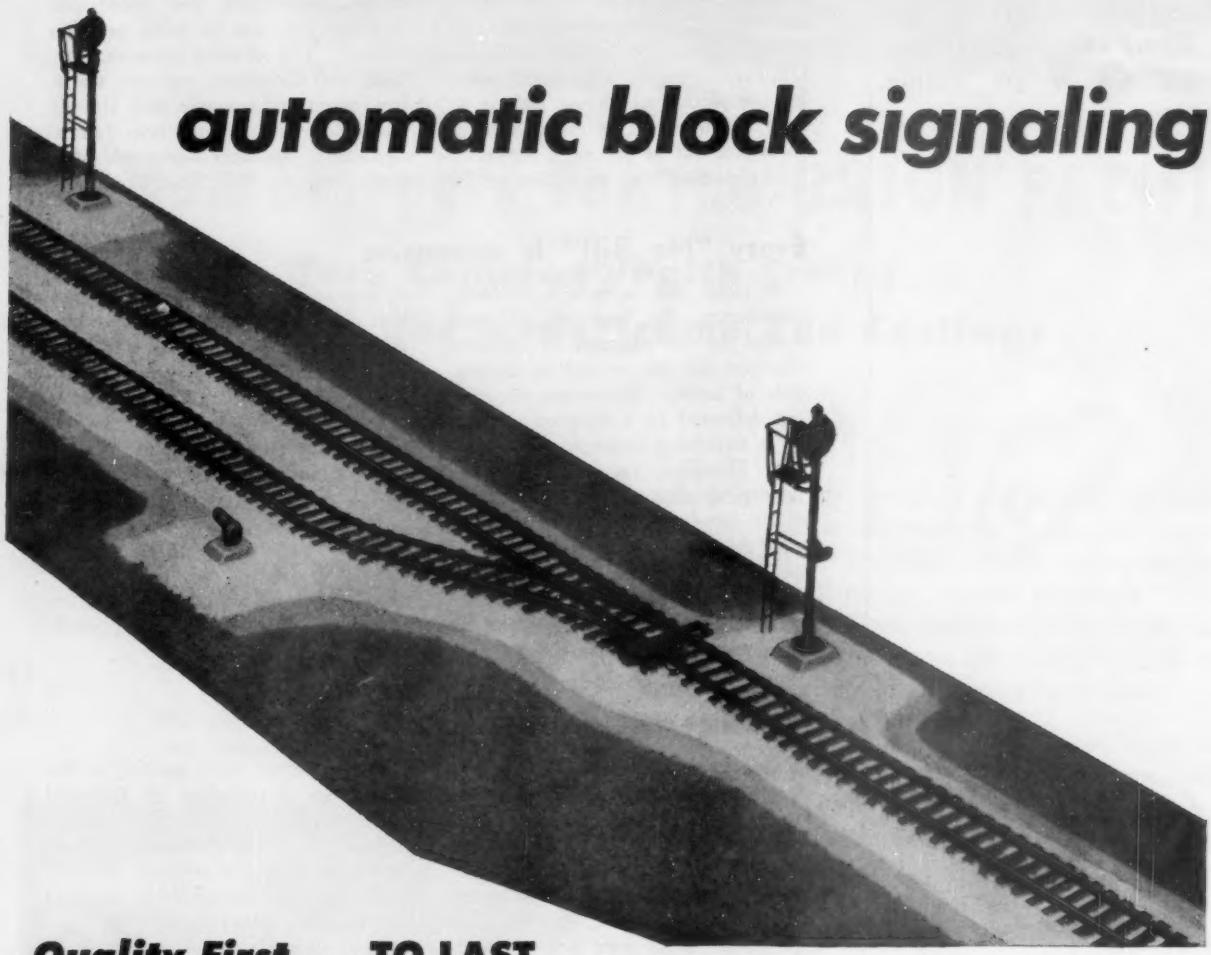
TRACK LAYOUT for Light Traffic C. T. C. System. Sidings may be arranged to best accommodate traffic with power switches at either end.



for Light Traffic Lines

at a cost comparable to

automatic block signaling



Quality First . . . TO LAST

75 Years 1881 1956

OF EQUIPMENT AND SYSTEMS ENGINEERING . . . . .

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

NEW YORK · CHICAGO · SWISSVALE, PA. · ST. LOUIS · SAN FRANCISCO

Questions and Answers

Of current interest to the Transportation Department

How many "no bill" cars do you receive from connections which have to be moved to the hold track? What are the costs of such delays in per diem, switching, clerical expense to get billing, etc. . . .

?

CONDUCTED By G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

Potential source of complaints

We have made no recent checks which would give us the information you want. We do know that there are too many no bill cars, and even though current effort might reduce the number we still would have too many. I say that because each no bill car represents a potential service complaint, which we feel is at least as important as the additional costs incident to the extra moves.

Incidentally, with our IBM machine operated service bureaus we are listing no bill cars and bills without cars by location. Faster receipt of the sheets generated by the machine operation will speed the matching of cars to bills, or bills to cars. Two of these bureaus, New York and Cleveland, are now working, while Indianapolis and Detroit will follow along in the near future. *—A. Hart, assistant vice-president—transportation, New York Central.*

Every "No Bill" is expensive

At times this is quite a problem, considering the number of cars loaded on one railroad by shippers who are not too prompt in making bills of lading. Of course, the cars are delivered to a forwarding road on a switching order or card waybill. However, the car cannot be forwarded until the shipper bills it.

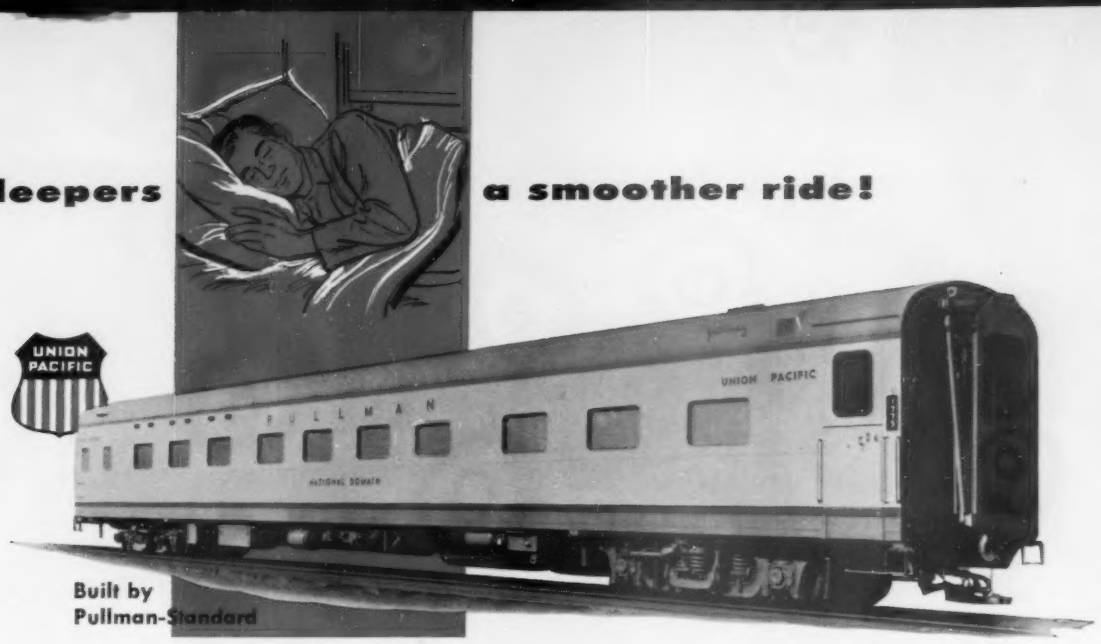
We have never tried to estimate what this costs, and therefore I would not be able to make a guess. When we find the situation getting bad we start handling vigorously with the plant to see that the situation begins to improve. However, we have found that shippers actually load cars when they do not have an order and have to wait until they can make proper disposition. Again, some products are loaded and the consignee requests that an analysis of the contents be made before it can be billed out, which takes several days. This mostly happens around cottonseed mills and places of that nature. However, you can rest assured a "no bill" car is an expensive item.*—D. C. Ferguson, assistant vice-president, Southern.*

Summer rise experienced

Our experience is that this problem is no worse now than it has been for a number of years. . . . We find that during the summer months when a large percentage of our regular force is on vacation or during the heavy peak movement when inexperienced extra men are employed that the situation is not as good as at other times. But even then we do not find it much of a problem. For this reason we have not considered it necessary to make any special checks at our terminals [which would develop the kind of information you are seeking.]*—A. W. Campbell, general superintendent transportation, Great Northern.*

[This question was prompted by the remarks of a superintendent speaking at the 1955 meeting of the American Association of Railroad superintendents. He said, "Cars received from connections without complete billing or without the waybill itself must be moved to the hold track. This makes for per diem expense; switching expense; delay to shipments, with resultant customer dissatisfaction; and ultimately causes handling expense far in excess of what would be required had proper billing accompanied the cars." So, we just wondered if anyone ever had made a check to see what was the percentage of no bills to cars received, and how much extra did it cost to handle these cars. But it may be, as Mr. Campbell says, that the situation isn't as serious as we sometimes think it is.*—G.C.R.*]

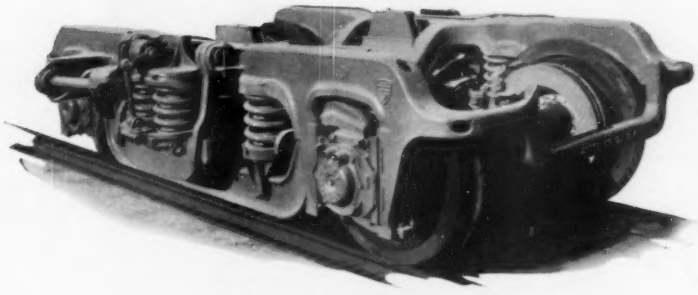
for Sleepers **a smoother ride!**



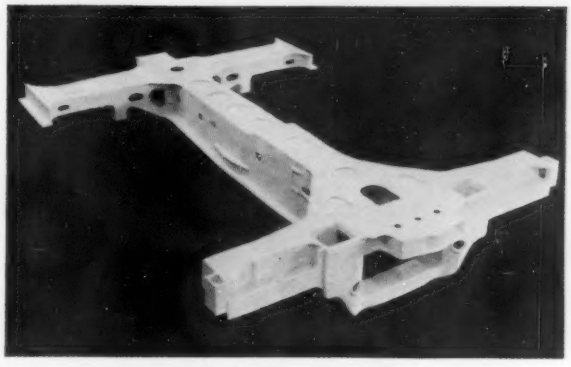
Built by
Pullman-Standard

35 New Sleepers For the UNION PACIFIC

Feature Commonwealth Trucks and Underframe End Castings



Outside Swing Hanger Truck
with Large Central Bearing



Cast Steel Underframe End

For passenger comfort and safety the Union Pacific Railroad provides the finest, most modern equipment. In keeping with this policy they are placing in through service on their "City" streamliners, 35 new sleeping cars equipped with latest design Commonwealth *outside swing hanger type trucks* and *cast steel underframe ends.*

Trucks of most modern design with outside swing hangers and large central bearings assure smooth, quiet riding at all speeds. Inspection of truck parts is simplified and maintenance costs are brought 'way down. One-piece underframe end castings with integral body bolsters and end sills provide exceptional strength at the ends of the cars, contributing greatly to travel safety and the elimination of up-keep costs.

A smooth, quiet ride *increases* passenger traffic . . . minimum maintenance *decreases* your costs. To be sure of both, specify Commonwealth cast steel products.

GENERAL STEEL CASTINGS

GEARED TO PROGRESS
P R I
MEMBER

GRANITE CITY, ILL. EDDYSTONE, PA.

Our Mr. Hayes is a destroyer

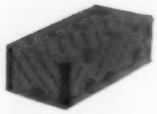
Bob Hayes is listed officially as Supervisor of Experimental Test and Production. But we refer to him as the "Destroyer" and encourage him in his efforts to run an O-P Diesel to death.

There's method in his madness, of course. Each accelerated test, under the worst possible engine operating conditions, condenses years of service into a few hundred hours.

If there's a weak part—we want to find it. If all parts prove strong—we want to find ways to make them stronger, last longer.

This continuing research is an important part of Fairbanks-Morse's customer service. It is the basis for our constant product improvement—part by part.

Fairbanks, Morse & Co., 600 So. Michigan Avenue, Chicago 5, Illinois.



Be sure you get the Dividend of Quality—specify genuine Fairbanks-Morse replacement parts. They are identified by the orange carton—and the Fairbanks-Morse Seal of Quality.

FAIRBANKS-MORSE

a name worth remembering when you want the BEST

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • MAGNETOS

Color ON THE MOVE!

Using AFI Quick Drying Enamels specially developed for the railroad industry, one railroad paint shop has increased its output from 8 to an average of 35 cars per day!

WELL-PAINTED, well-lettered railroad equipment is a rolling advertising medium—truly "color on the move." With the advent of the diesel engine, American railroads ushered in a period of modernization which includes the widest possible use of color for locomotives and passenger cars, for box cars and gondolas, for covered hopper cars and tankers, for railroad stations, buildings and maintenance equipment. Automotive Finishes, Inc. has developed special synthetic enamels for the railroad industry—test-proven paints with better adhesion, quicker drying, more gloss, harder finish, better color durability, longer wearing finish, lower maintenance cost per car and lower revenue loss in removal from service for painting. Actually, AFI finishes permit cars to be completely refinished and stenciled in a matter of hours. We will be pleased to provide you with full details.

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AUTOMOTIVE FINISHES, INC.

8747 BRANDT STREET • DEARBORN, MICHIGAN

Memo to Railroad Executives:

"For purely selfish reasons...

Jake Stewart is vice president of Commander-Larabee Milling Company. Commander-Larabee is the fifth largest milling company in the United States.

Congratulations

on your improved service!"

What The FREIGHT-LINER SYSTEM Is and Does!

Freight-Liner 810 can be applied anywhere in any kind of weather to upgrade cars quickly. First a coat of Freight-Liner Resin 810 is sprayed on floor or wall areas. Next, Freight-Liner Fiberglass Reinforcing Material is applied. A second coat of Freight-Liner Resin 810 impregnates the fiberglass which dries quickly to a smooth seal. Cars are ready for use in three to six hours.

People at Commander-Larabee Milling Company agree that the railroad industry should be congratulated on its new method of upgrading cars with Freight-Liner 810.

During the past year, Commander-Larabee cooperated with the Kansas City Southern Railway in a series of tests. Cars upgraded with Freight-Liner 810 were used in shipping bulk grain, sacked flour and feed.

"As a shipper using more than 100,000 cars a year, we were pleased with the new Freight-Liner System. This was reflected both in car availabilities and in the excellent car condition apparent in all comparative tests," said Jake Stewart.

"Reports on test cars show that losses were cut to a minimum when cracks and broken linings were spot-patched with Freight-Liner 810.

"Freight-Liner cars were easy to clean and sanitize and bulk shipments came through in excellent condition. Claims on torn bags and other losses in the test shipments were way below average. Frankly, we'd be tickled pink if all our shipments could go in cars upgraded with Freight-Liner," he added.

Archer-Daniels-Midland company

Archer QUALITY

700 Investors Building, Minneapolis, Minnesota

THIS railcar, in daily round-trip service between Shattuck, Oklahoma, and Spearman, Texas, has a new lease on life, since it was repowered with a Cat D397 Railroad Engine. The Panhandle and Santa Fe, a subsidiary of the Santa Fe, dieselized the car in 1953, replacing a gasoline engine.

Many other roads operating this type of equipment have switched from gasoline to Cat Diesel power with two important results:

1. Lower *operating* costs. In some cases fuel costs have dropped over 50%.
2. Lower *maintenance* costs. Cat Diesels give thousands of hours of economical performance with only routine maintenance.

Now Caterpillar four-cycle Railroad Engines are still more efficient. Consistent with Caterpillar's policy of continuous product improvement, the entire line has been made even better and several new engines and electric sets have been added.

Your nearby Caterpillar Dealer can show you the latest Cat power packages available for on and off track use. He'll show you the advantages of repowering with the exact Caterpillar model for your needs—Cat Diesels run up to 520 HP and Electric Sets up to 315 KW.

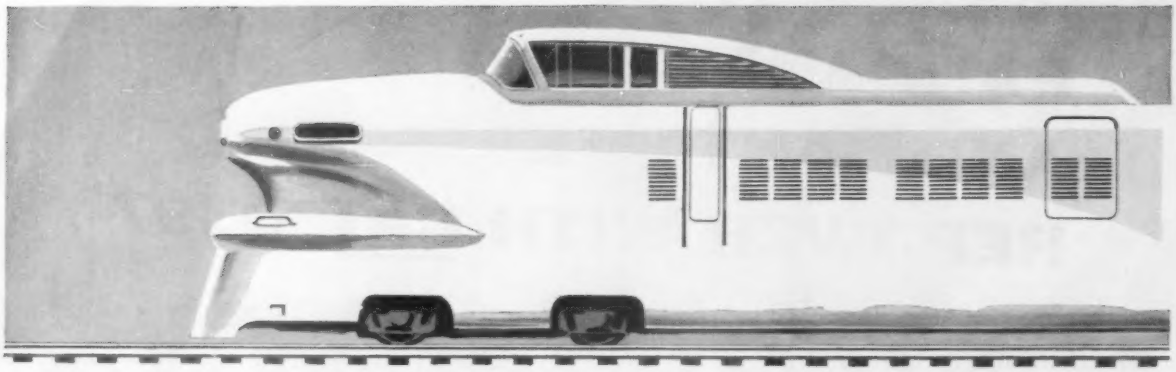
And remember when you are ordering new equipment, leading manufacturers of locomotives and equipment will furnish Cat Engines as part of their packages.

Caterpillar Tractor Co., Peoria, Illinois, U.S.A.

CATERPILLAR*

*Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

MODERN HEAVY-DUTY RAILROAD POWER



BENEATH THIS OVERPASS GO THOUSANDS OF YOUR POTENTIAL CUSTOMERS

Beneath it! That's where the competition travels. These "between-city motorists" are your biggest competitors. They ride 500 billion passenger miles a year—on the road, not on the roadbed.

Now alert railroad management is luring them back with the popular Hertz Rail-Auto Travel Plan. This plan, pioneered by Hertz to get the motorist back on the right track —railroad tracks—offers him swift, comfortable rail travel *plus* that car he wants waiting at his destination.

You can help promote it, help move traffic back to the railroads. Try the Plan yourself, observe its attractions and you, too, will become a personal booster.

Every time your ticket agents sell a ticket, urge them to ask this question: "*May I reserve a Hertz car for you at your destination?*"

The railroads win friends and customers, and agents get a bonus from Hertz: 10% commission on the total rental charges.

Help Hertz promote Rail-Auto travel in your advertising. Call on them for free displays, signs and literature. Capitalize on Hertz' own huge national Rail-Auto travel promotion.

Interested? Remember, Hertz is the world's oldest and largest car rental system, serving over 700 cities throughout the world. Hertz provides sparkling new Powerglide Chevrolets or other fine cars. For Hertz Rail-Auto Travel Plan facts, forms, and promotional materials call or write: Hertz Rent A Car, 218 South Wabash Avenue, Chicago 4, Illinois.

More people by far...use

HERTZ

Rent a car

How to Get Unity In a "PR" Program

The railroad industry could attain a great deal more unity—and, hence, more effectiveness—in its program of explaining transportation problems to the public, if there were clearer discernment of the essential distinction between so-called "public relations" and so-called "lobbying." The two activities are related, but they address entirely different audiences and they are performed by different people. Their timing differs, too.

In "lobbying," or legislative effort, the objective is to secure the enactment of a specific piece of legislation —usually highly technical, and fully comprehensible only to experts. For example, at the recent session of the Congress, the railroads narrowed down their specific legislative objectives to what was called the "three shall nots"—three relatively slight changes in wording of the Interstate Commerce Act. The net effect of these changes would have been to give the railroads greater freedom in making rates.

Principles vs. Details

In order to secure "grass roots" public support for such specific legislation, it is not only unnecessary, but may be confusing, to try to get the public to understand specific proposals for changes in the wording of statutes. It is quite sufficient for the general public to understand the public significance and importance of some broad objective such as greater rate-making freedom for the railroads, and so to advise their legislators. The precise legislation necessary to achieve this broad goal is a matter that legislators and interested parties can work out for themselves and they will do so if "the general atmosphere of public opinion" is favorably inclined.

It is not the function of public opinion, or of people engaged in educating the public on transportation issues, to take over the detailed work of lawyers and legislators—whose task it is to translate measures public opinion will support into specific legal language. It is the job of public relations people concerned with popular education to persuade the public to think straight about transportation questions. The distinction between public relations and legislative endeavor may perhaps be made more explicit if their characteristics are set down beside each other, as is done in the next column.

Please note that differences of opinion among railroad people on most questions of industry policy usually arise from differences in viewpoints as to the priority of specific legislative objectives. One road is concerned primarily about "time lag," another about the right to provide other types of transportation. Still another believes that rate-making freedom should come first.

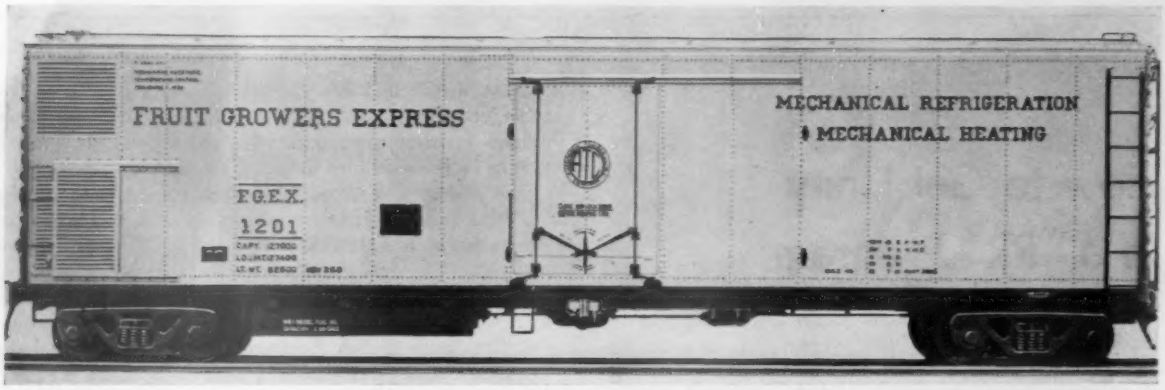
Note, again, that none of the advocates of one or the other specific measure has any fault to find with the others' favorite proposals. He likes them, too—only that he believes his own proposal should have priority.

Note, also, that there is a common denominator in all these railroad industry objectives and this common denominator is *anti-socialism, advocacy of equal competitve conditions for self-supporting private enterprise, minimizing government interference.* This common denominator is the principle the railroads are actually advocating, even though the immediate legislative goal up for action at any one time will be more specific, e.g., the "three shall nots," the repeal of the fourth section, or tolls on the inland waterways.

There needs to be a continuing program of education going on all the time for *anti-socialism* in transportation—because that is a program on which there is no disagreement at all among railroad people or their friends. The fourth-section repeal advocate could illustrate his anti-socialist message by citation of fourth section abuses. The waterway toll advocate could draw his examples from that area. The national and regional associations in their educational programs could speak kindly of all these objectives, as examples of desirable anti-socialist endeavor, without necessarily expressing a preference for any one of them. And the entire program, as far as public education is concerned, would be quite unrelated to any specific legislative measures actually pending in Congress. Such a program can and should be going on all the time, quite independently of what specific legislation may be active at any given time.

DIFFERENCES BETWEEN PUBLIC OPINION EDUCATION AND LEGISLATIVE EFFORT

Legislative Effort	Public Opinion Education
1. The recipient is the legislator who is reached by personal contact.	1. The recipients are the general public, numbered in the thousands and millions—usually not contacted personally but through advertising, public addresses and other "mass communication."
2. The legislator is asked to support a specific bill.	2. The general public is educated in accepting and advocating the general principles which would be implemented in part by the specific legislation the legislator is asked to support.
3. Since there are relatively few people to be approached, legislative effort in behalf of a specific bill can be completed in a comparatively short time.	3. Since there are millions of people to be "sold," public opinion education is a job requiring years, and relentless continuity of effort.



FRUIT GROWERS' latest, the 1201-1600 series, weighs 82,600 lb with 3,034 cu ft of loading space. Over strikers the car is 52-ft 5½-in. long. Loading space length is 44-ft 5½-in. and its width is 8-ft 8-in.

MEETING AN EXPANDING DEMAND . . .

Mechanical Reefer Fleet Grows

Refrigeration and heating equipment, an a-c electrical system, and a diesel engine are housed in car incorporating latest construction techniques

The associated Burlington Refrigerator Express, Fruit Growers Express, and Western Fruit Express are now operating more than 1,000 mechanical refrigerator cars. Fruit Growers has recently completed assembly of the last of 400 new mechanical cars in company shops at Alexandria, Va. Already the associated companies have 280 additional cars on order for earliest possible delivery—evidence of how rapidly demand is expanding in this field—an operation initiated by FGE in 1948.

Description of Cars

The 400 cars just completed by Fruit Growers are typical of the equipment and techniques utilized in today's mechanical refrigerator cars. These cars are nominal 70-ton, 50-ft units. Actual capacity is 128,000 lb. They have steel underframes with all-riveted, steel-sheathed superstructures.

At the A-end of the car is an engine compartment 4-ft 8-in. long, containing the generating and refrigerating equipment. This is separated from the load-carrying space by an insulated partition behind which are the evaporator and blower. Air from the blower is circulated through a ceiling duct and through flues in the side and end walls, then is returned under the floor racks to the evaporator.

Subassemblies were purchased from various railway supply companies. Trucks include Hyatt 6 by 11-in. roller bearings and Bethlehem, Edgewater and U. S. Steel axles and one-wear wrought steel wheels. The 70-ton trucks are of the pedestal, spring-plankless type with 3-11/16-in. spring travel and Henry Miller coil springs. Truck components came from Buckeye and Symington Gould. Trucks for half of the order are equipped with S.C.T. Barber S-2-C stabilized control, and the remainder have A.S.F. A-3 ride control.

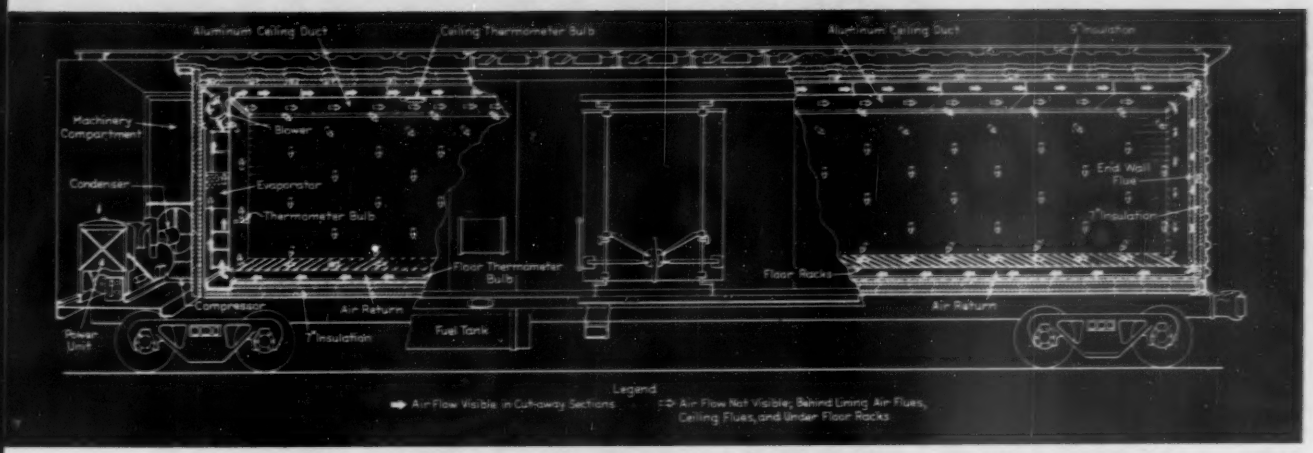
Bolsters are equipped with Stucki roller side bearings. There are Unit brake beams and Schaefer brake linkages.

Underframes were supplied by ACF Industries. They are all-welded assemblies of copper bearing steel. AAR 51.2-lb Z-sections form the center sill, and side sills are 15.3-lb 6-in. channels. End sills are 21.3-lb 8-in. channels. Bolsters and crossbearers are assembled from ⅜, ½ and ⅝-in. plate, and crossties are ⅜-in. pressed channel shapes. Allied strikers and Buckeye center fillers are used. National Malleable's rigid shank "E" couplers and MF-275 rubber cushion draft gears and Standard uncoupling devices are utilized.

Side Construction

The side assemblies are of copper-bearing steel and were built by Youngstown Steel Door Company. The side sheets are of 0.10-in. material. Vertical posts are 3-in. 5.1-lb Z sections with 8.3-lb Z's for door posts.

The side plates are pressed from ¼-in. material and side angles are ½ by 6 by 6-in. angles. The assemblies have brackets and other features for application of the interior finish. Mulehide paper and Dearborn No-Ox-Id cement are used at



AIR DISTRIBUTION through body of the mechanical refrigerator car provides for air flow behind all surfaces of the loading space. Machinery compartment, evaporator, blower and fuel tank are at the same end of car.

all metal-to-metal contact points throughout these riveted assemblies. Youngstown 6-ft wide sliding doors with Camel fixtures are standard. Copper bearing steel is used in the Standard Railway Equipment two-piece Dreadnaught ends and in the diagonal-panel roofs.

Insulation

The 3/32-in. Cor-Ten subfloor applied to the top of the underframe, and the sides, doors and ends are coated with Mortell Insulmat prior to the application of the insulation inside the car. Joints between the floor and walls are vapor sealed with Presstite plastic cement. Three layers of muslin-covered Hairinsul form the 7-in. thick floor insulation. The 7-in. insulation in the walls, doors, end and bulkhead is two to three layers of Gustin-Bacon Ultralite in 1- and 1½-lb density. Roof insulation, 9 in. thick, consists of three layers of ¾-lb Ultralite. A paper air barrier is used with the insulation throughout the car.

Wood framing, lining and flooring are all thoroughly dried Douglas fir. The 6-in. high Herringbone-type floor racks have white oak slats, Unitcast Pin-less hinges, and Azee wall-type rack holders. The ceiling air duct is formed by placing 0.064-in. aluminum sheets 6 in. below the tongue-and-groove ceiling. It is continuous without shutters. Air then passes down into 1 7/16-in. flues in the sides, ends and doors.

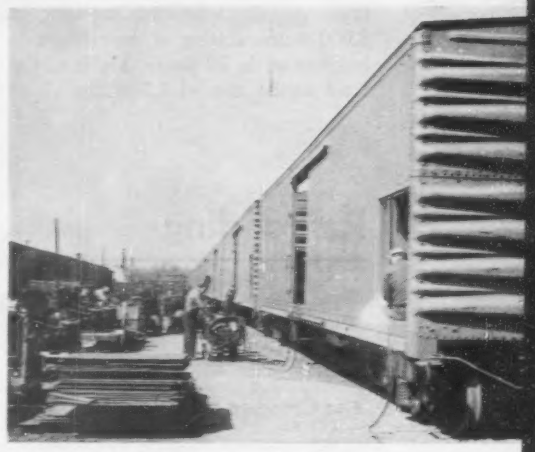
The cars have Apex running boards and brake steps, and Wine side and end ladders. Cars are painted with Automotive Finishes products, and the underframe is coated with Insulmat. Wood lining is finished with refrigerator car varnish. Westinghouse and New York Air Brake AB brakes with 10 by 12-in. cylinder, Royal type F slack adjusters, and Universal non-spin hand brake are applied.

The 400-gal fuel tanks are built by Youngstown Steel Door and have Crane fittings. Nathan fuel sight gages can be read from each side of the car. Each car has a pair of Liquidometer thermometers indicating temperatures at the floor and ceiling. These cars are designed for a refrigeration temperature range from minus 5 to 70-deg F. They are designed by Fruit Growers as "all purpose" cars. This means that they provide for cooling and/or electric heating as required by the thermostat setting.

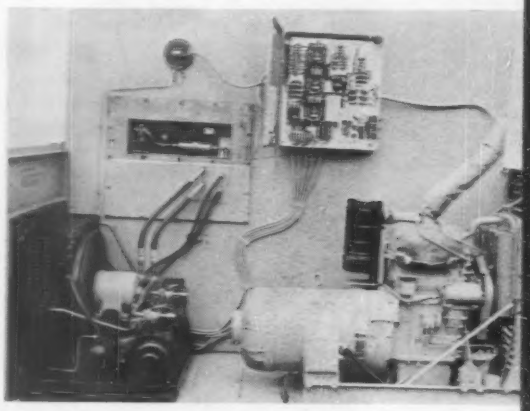
Refrigeration

Power for the refrigeration, heating and air circulation systems is provided by a 20-kw General Motors diesel alternator. The two-cylinder, two-cycle engine has 4¼-in. bore and 5-in. stroke. It is directly coupled to the alternator and is governed to operate at 1,200 rpm. The engine also has a separate 12-v generator for charging the Delco starting battery which is located in a small battery box reached through the floor of the machinery compartment.

The Frigidaire refrigeration sys-



ASSEMBLY LINE put 400 latest mechanical cars together at the rate of five per day. Refrigerating equipment was put into operation and cars sent empty to Florida for inspection.



MACHINERY compartment houses (right) diesel-alternator and (left) dual compressor-condenser unit. On left of the bulkhead is the refrigeration control panel including heat exchangers.

tem is a split type with dual compressors operating two separate refrigerant loops filled with Freon-12. Each of the 1-cylinder compressors is driven by a 220-v 5-hp induction motor. The split condenser is mounted on the same base with the compressors and refrigerant receivers. The condenser fan is operated by a 1-hp motor operating at 1,160 rpm.

The high pressure liquid Freon is further cooled en route to the evaporator by passing through heat exchangers cooled by Freon vapor returning from the evaporator. The evaporator is a split type with two expansion valves and dual sets of coils. Resistance type heater rods are also installed in the evaporator both for automatic heating and for defrosting during refrigerating operations. Total heating capacity is 8,000 watts. Rating of the refrigerating system is 10 tons. Air is circulated at the rate of 4,500 cfm.

A transformer provides 25-v current for operation of a control circuit.

A diaphragm-actuated switch controls the heating and cooling operations through this circuit. The diaphragm is actuated by a temperature bulb installed in the air duct. Defrosting of these latest cars is controlled by a pressure-actuated switch which measures the differential across the evaporator coils. Earlier cars have a defrost clock which puts the defrosting cycle into operation every 8 hours.

Full load operation of the diesel alternator consumes fuel at the rate of approximately 1 gal per hour and diesels never are shut down while the car is loaded. The two compressors are independent of each other, and controls provide for serial starting of both machines. There is no provision for operating only one compressor at light cooling loads. Both are cycled on and off by the temperature control panel. The system has proved its ability to maintain very steady temperatures at any setting.

Movement of fresh fruits and vegetables at temperatures above freezing is done with a combination of heating and cooling, while transportation of frozen foods uses continuous cooling except during defrosting periods. The control system provides for automatically locking out the heating function at all temperature settings below 20-deg F.

The BRE-FGE-WFE organization has accumulated a great deal of experience in servicing and maintaining these cars. Their methods will be described in future installments in this series.

The operating techniques for these $22,000 cars are important, not only because of their cost, but because of the growing amount of traffic they are handling and attracting.

Railroading

After Hours

The Crowson Question

by James G. Lyne

Editor, Railway Age

Some interesting mail has come to me, in answer to the question raised by George Crowson of the IC, which I passed along a couple of weeks ago—about what the railroads are going to do for public contacts, with passenger traffic having suffered such a decline.

My suggestion for a partial, but still quite unsatisfactory, answer was that such passenger contacts as still remain might be made almost unanimously favorable—by making certain that what had been lost in quantity would be gained in quality. George Crowson himself tells why this answer won't do.

He recently talked to a businessman whose town still has railroad freight service, but no passenger service, and this man said the railroad *used to serve* his town. In other words, because passenger service was out, this man believed the railroad was out.

Murray Campbell of the B&O believes that one answer may be for railroad managements to encourage and even require their people in every town to take a prominent part in civic affairs. If this is done, the citizens of the town will know that the railroad is active, because local railroad people are such conspicuous community leaders.

Graham Mason, an advertising man who commutes on the PRR's "main line" into Philadelphia every day, sees six trains go by every morning in a 10-minute period—a performance he considers "a miracle of timing and control." He thinks there are a lot of interesting things like this going on around the railroads, which people would be eager to read or hear about—presumably through some form of advertising.

It certainly is true that advertising is one means of getting a company's identity into households which, in the ordinary course of events, would seldom be aware of their interest in that company. Consider, for example, what U.S. Steel has accomplished in this connection.

A Lot of Irritants

H. L. Howe of DeWitt, N.Y., read the Crowson question in an issue of Railway Age which he picked up in a railroad club car. He said he travels a lot by air, but he also travels a lot by rail—and, when he isn't in too big a hurry, he likes it. But there are a lot of things that irritate him—for instance, the confusion of standard time when everybody else is on daylight time. He mentions other irritants—quite a list, in fact.

This gets me back to my original suggestion—unsatisfactory as a complete answer to GMC's question, but a partial one anyhow—namely that every public contact through passenger service be a favorable one. That would, at least, be a beginning—and the suggestions of Messrs. Campbell and Mason should help some, too.

Any other suggestions?

$17 Million of Paint Buys . . .

- Better equipment utilization
- Increased employee safety
- Worker productivity
- Lower operating costs

The railroad industry's paint bill averages about $17 million yearly. Labor costs of application of the paint come to several times that amount. Yet it is probable that corrosion of unpainted or poorly painted rolling stock and fixed facilities is costing the industry more than it spends for paint and its application. Paint alone is not the answer to all the problems of corrosion, but on the market today are many industrial coatings which will help reduce such costs. Some of them are mentioned in the succeeding pages.

Paint of course serves more purposes than just preserving metals and other materials. Intelligent use of it means increased safety for employees and public alike, as well as more willingly productive workers in shops and offices.

While paints used by the railroads have been improved over the years, so too has the equipment for painting. Wider use of the hot spray painting process—and now the steam spray process—has reduced, and will continue to reduce, the cost of applying coatings.

Two main departmental users of paint are active in the way of finding new coatings and methods of applying them.

IN THE STRUCTURES FIELD . . .

Paint Is a Multi-Purpose Tool

The dual need for protection and appearance for bridges and buildings has sparked many developments in coatings and methods of application

To the question "What's new in paint for the men in the maintenance-of-way-and-structures field?" most railroad men answer: "New coatings for old uses." At the same time, however, new coatings breed new uses and applications.

The primary purpose of paint is, as always, protection. This purpose is more sharply defined between steel and wood structures, because steel needs paint or some other suitable coating to resist corrosion, which is relatively rapid. Hence, protection is the first consideration in its application to steel surfaces, and appearance is secondary. On wood, paint retards erosion of the cells caused by weathering, but this erosion is very slow.

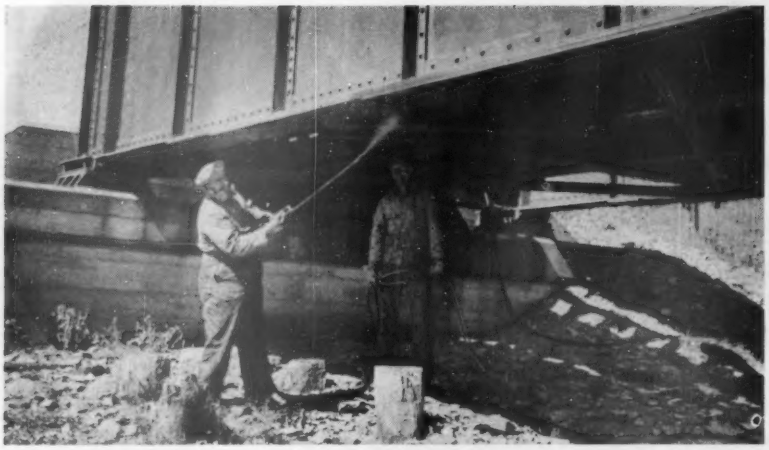
Although paint will postpone need for replacement of boards which will split from the swelling and shrinkage caused by moisture absorption, wood is painted more for the sake of appearance or some other reason than protection.

What Railroad Men Want

Many railroad men are accused of expecting too much from paint. Some ask paint manufacturers to produce a paint which will have a 20-year life under all service conditions. Some want a paint which can be applied without any surface preparation. Some want a paint which can be applied even when it is snowing so that their paint crews can be kept busy all year 'round. Some want a one-coat paint with a two-coat thickness to reduce the cost of application. Some want a "foolproof" paint which can be applied by an inexperienced painter and yet result in a finished coat having good durability and appearance.

Many railroads formulate their own specifications for paint but expect the resultant coating to serve equally as well in industrial areas as in the open country where deleterious gases are practically nil. They are then disappointed when the paint fails earlier on the urban structures

SURFACE CLEANING is hard work, whether done by hand or with power tools, but a thorough job of cleaning must be done if the paint film is to have any permanence.



SPRAYING looks easy but it requires an experienced man to apply a coat of paint of uniform thickness on rivet heads, in cracks and in pockets.

than the norm for the entire railroad.

One of the important problems faced by bridge engineers is getting competent foremen and painters who are sufficiently interested in their work to do a good job. Proper surface preparation, whether by hand or power tools, is hard work and takes a long time. Applying paint is much easier work than brushing, scraping and knocking off rust and loose mill scale, and consequently the cleaning phase of a painting job is inclined to be slighted. Commercial sandblasting and flame cleaning, although giving excellent results where necessary, are expensive and many maintenance men are prone to pass up these methods of surface preparation in lieu of hand cleaning.

No matter how carefully a paint system is devised, the result will be early paint failure unless surface preparation has been thoroughly carried out.

One bridge engineer reports he is certain he can use an inferior paint and, with proper surface preparation and methods of application, obtain a more durable paint surface than some of the work he has observed using good materials. Another bridge engineer reports that he is so discouraged about securing good foremen and painters that he believes the only answer to this problem is to rely upon the paint manufacturers to produce a paint which will have good coverage, bonding and durability qualities regardless of the surface preparation or method of application.

For this reason many maintenance engineers are using rust-preventive compounds extensively. These contain inhibitive materials and have excellent wetting characteristics so that generally only the dirt, rust and mill scale must be removed from the surface before application of one coat of the compound. Some remain soft after application and others, containing solvents, harden upon evaporation of the solvents.

Another great paint problem of the railroads is the protection of steel members, particularly on main lines, exposed to brine drippings from refrigerator cars. Although certain alloy steels have been developed to resist brine corrosion, paint manufacturers also have produced some synthetic-resin paints as protective coatings which have greater resistance to brine than have oil-base paints. However, brine is particularly severe on any paint and frequent repainting is necessary for good protection.

Many roads are using the one-coat rust-preventive compounds with marked success against brine corrosion. Some have metallized vulnerable surfaces with zinc coatings. A few are using deflecting plates over the floorbeams and girders of the structures subject to brine.

Special Functions for Paint

In addition to furnishing protection to the underlying surface, paint also is being used for other functional purposes. Non-skid paints are used on painted steel and wood surfaces where persons must walk. These paints contain sand or aluminum oxide as abrasives.

To protect the surfaces of tanks, drums or piping containing high-temperature materials, special alkyd and silicone paints are now available. For surfaces subjected to extremely high temperatures, up to 900 deg F, special metallic coatings are used.

Many bridge engineers have found it difficult to obtain a durable paint surface on structures over bodies of water or in high-humidity areas. Wetting oils have been made available for such conditions and, from ½ hr to 12 hr after application of the wetting agent, these surfaces can be painted successfully with a water-resistant paint.

Light reflection is another use made of paints, especially for ceilings or the upper portions of building interiors. White gives high reflectivity and is most widely used for this purpose. White paint also is used extensively for roadway signs and as a binder for tiny glass spheres sometimes added to the coated surface to produce high reflectivity at night.

Aluminum paint is now being used extensively, not only for its brilliant appearance and moisture resistance, but also for its light-reflecting and heat-reflecting qualities. It is frequently used on storage tanks, signal instrument housings, metal roofs, handrails, and on steel bridges over important highways where a pleasing appearance is desired.

More Color Is Used

One bridge engineer reports an unusual use of aluminum paint for its heat-reflection characteristic. Two swing spans, situated in an east-west direction, were troublesome on hot days because the sun heated the south sides of the structures more than the north, causing them to warp out of line. For years the spans were swung end for end on such occasions to equalize the stresses. After applying aluminum paint to the structures, no further difficulty was experienced.

Paint manufacturers report that railroads are using more color than heretofore. Although most roads have set up standard colors for general use, they are deviating from the standard color schemes for the interiors of many of the more important stations, ticket offices, shop buildings and enginehouses.

It is now generally recognized that color has a psychological effect on people. Along with other industries, railroads are employing color to reduce worker fatigue, to increase safety and to raise employee morale. Sunlight and artificial lighting also play an important part in obtaining the desired effects.

Pastel shades of green are used extensively in shops and offices, although tan and coral also have found places in offices where color harmony is desired. Stronger and more contrasting colors are used in corridors, lavatories and rest rooms. Careful selection of colors is made for the walls and ceilings of rooms where food is served because of the unappetizing appearance which some colors, notably blue, give to edibles.

Colors now play an important part in the control of safety in shops. The generally accepted safety-color standards are those of the American Standards Association. These designate orange for marking objects or parts which might injure workers; yellow for moving-equipment and similar hazards; red for fire-fighting equipment, handrails and danger signs; blue for electrical controls, operating levers, and similar items; and green for identifying safety equipment and locations.

Colors are also largely used in diesel shops for identifying various pipe lines thereby eliminating possible hazards.

Today's Freight Car Is Colorful

Standard box car red is no longer universal, and even where it is still used multicolored lettering and trim are making rolling stock more conspicuous

A definite eye-catcher with some advertising value—at least until more railroads paint with something other than box car red—that's the objective of the current rash of brightly colored box cars. Nearly as effective in attracting attention has been the use of large lettering or colorful trim on the more conventional red or black body color. Manufacturers have stressed the possibilities and in the past few years railroads have been making rolling billboards out of their freight equipment. This is a practice which private car lines always used effectively.

The diesel locomotive and the streamline train of the thirties did much to bring colors back to the rails. The past decade has seen similar changes in the freight car field—and paint manufacturers report that their sales of colored freight car paints, although only a small part of the total, are increasing—and are expected to continue upward.

There is an ever-growing demand for greater car and locomotive availability. Both the materials used for finishing locomotives and cars and the methods and equipment used in applying them can contribute to its realization. Increasing the elapsed time between paintings, while reducing painting time should help the railroads considerably in reducing shop time of rolling stock. This in turn makes a dent in equipment shortages and increases unit earnings of equipment.

Simplicity is a factor, too. The Seaboard, for example, has dropped its original passenger diesel painting design which involved considerable masking and striping. The new aluminum body paint scheme is trimmed and lettered with Scotchlite reflective material. A saving of $275 per locomotive was achieved through the use of this new, similar color scheme.

Painting is moving inside. Passenger car and locomotive shops usually had space for painting inside, but freight car repairs and particularly subsequent painting have frequently been outside operations. Inside and mechanized—that's the painting trend in recently built car shops. Car shops are being equipped to blast the old paint and scale off the surfaces of repaired cars—making them ready quickly for application of new coats. Chemical prepa-

One of the more colorful lines of new box cars on the rails today is the Boston & Maine's brilliant blue with black and white lettering.

HERE'S AN EXAMPLE of what corrosion can do to a car, in this case a diner. Some of the newer protective coatings are designed to prevent this sort of thing—and reportedly they are effective.

rations for rapid paint removal also have been made available. One road has been investigating infrared drying for removing rain and frost from surfaces to be painted. And infrared has been used for drying the paint itself.

In mechanizing paint application, there has been increasing use of the hot spray and steam spray processes. Among the hot spray users are Pacific Fruit Express, Pennsylvania, Reading, Pullman-Standard, Seaboard Air Line, Southern Pacific and Union Tank Line. Among reported results are greatly improved finish, longer life, better coverage, material and time savings, and improved working conditions.

Cuts Time

Hot spray's controlled temperature maintains constant viscosity, a viscosity which is much lower because of the uniform high temperature. Also because of the heat, the fast solvents evaporate between the gun and the surface, leaving a high solids film.

This smoother, better looking paint job is said to last longer and to be ready for stencilling in half the time of older processes.

Several years ago, Union Tank Car Company at Whiting, Ind., purchased several Spec-Flo paint heaters for its shop. "Prior to the use of hot spray," said W. H. Runkel, Union Tank vice-president, "we were spraying our cars with a prime coat, a second coat on the top half of the tank down to the handrails, and a final coat over the complete car. This resulted in a paint film thickness of about two to three mils.

"With hot spray, we are now getting three to four mils film thickness in one prime coat and one finish coat. Drying time has been improved by 50 per cent. Labor costs have been slightly reduced. Our savings are expected to be in longer life of the paint job with the result of longer intervals between repainting."

At Whiting, hot spray has made possible production line scheduling of tank car rebuilding. With conventional spray, painting variables and overnight drying made scheduling almost impossible.

Paint for tank cars has been a particularly difficult problem. Because of the wide variety of corrosive liquids handled in these cars now, protection of the tank and structure has become increasingly complicated. But today paints and protective compounds are available which have substantially reduced corrosion in the tank car fleet.

Two years ago the Chicago & Illinois Midland began to paint the interiors of 70-ton gondola cars. The purpose was to lengthen car sheet life, and two years of tests have shown the economic justification of the expenditure.

The C&IM expects soon to begin repainting the interiors of these cars. The exteriors will not be repainted at this time. The interiors will be sandblasted lightly and receive new coats of Carclad. Recently other roads have been conducting similar tests with hopper cars. One such experiment was the application of a synthetic rubber coating only to the hopper chutes—but results are not yet available.

Manufacturers report that the color trend for freight equipment requires the use of higher grade paints. Box car red has protective qualities, but does not retain a glossy surface. The new colored paints, to be an effective advertising medium, must not change color with aging, and this requires paint somewhat more expensive than has been previously used.

Gradually freight car paint quality is approaching that used on passenger cars and locomotives. Some roads now are using a single coat finish which can be applied directly to the metal without a priming coat. Paints which permit stencilling in 30 minutes to an hour, and complete painting in one day, are now available to the railroads. Masking and preparation for two and three color paint schemes complicate the process but one day painting still is a possibility.

Cuts Cost

Some roads schedule repainting—although most frequently it is done in connection with mechanical rebuilding. The Seaboard reports that this determines the repainting of passenger equipment. A Railway Age survey showed that freight cars are repainted every six years, and locomotives and passenger cars average 4½ years between paintings. Labor cost of paint application was usually two to three times higher than the cost of the materials used. With the necessity for applying better grades of paint, and with the availability of mechanized painting equipment, eventually these costs may be more nearly equal.

The main purpose in painting cars and locomotives of course always will be to protect the car itself—to prevent corrosion. Today many new coatings are on the market which do this job better than was thought possible a few years ago.

Too, safety is playing a part in the color schemes in which equipment is painted, while the use of reflective paint is growing more common daily.

Paint Products Section

Some of the coatings and applicator equipment now available to railroads for protection and decoration of fixed structures and rolling stock are described

DUM DUM FOR METAL

Dum Dum for Metal forms a film as much as 15 times the thickness of normal paint film, its maker states, and sets up with a dry top skin over a semidry body to allow for expansion and contraction. So pliable is Dum Dum that one of its main railroad uses to date is for coating expansion joints on bridges. If the outer skin is bruised or broken, the pliable undersurface reportedly heals by skinning over and hardening.

Dum Dum is designed to resist every corrosive element which attacks metal, but is not generally recommended for protection against abrasion. However, it is said to have high resistance to flying cinders. Used on an overhead railroad bridge, cinders become embedded in the surface of the film, adding to the strength of the finish, the manufacturer states. *Arco Company, Dept. RA, 7301 Bessemer ave., Cleveland 27* •

SAFETY PAINT

A wide variety of uses has been found for Prismo reflective finishes, both on and off the railroad. Readers of Railway Age are familiar with the use of reflective paints for marking cars and locomotives, for making roadway signs more visible to railroad personnel, etc. As an additional safety measure, the manufacturer is suggesting that engine footboards, ladders on cars, stirrups and grab-irons be painted with reflective paint. While safety aspects are emphasized, the manufacturer asserts that the product will outlast four coats of ordinary paint in

protecting surfaces. *Prismo Safety Corporation, Dept. RA, Huntingdon, Pa.* •

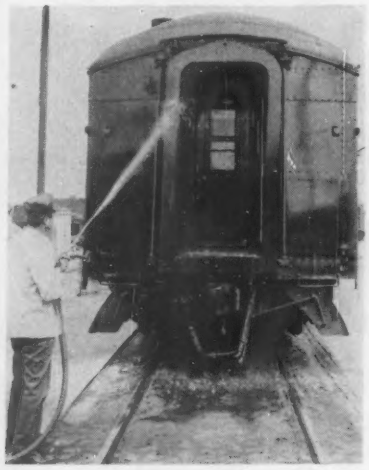
ADDITIVE SPEEDS DRYING

Arnex, a new liquid compound, when blended with any standard finish, is said to cut finishing costs 35-50%. For best results, its maker states, Arnex should be used both with primers and finish coatings. Arnex-reinforced paint can be used on any kind of wood, metal or composition surface. Brushes, rollers or sprays can be used to apply finishes with Arnex added. And, the manufacturer states, because Arnex disperses the pigments in the paint, spray guns can be operated at lower pressures.

The product is furnished in five different formulas for use with different types of finishes. *Arnex Chemical Company, Dept. RA, 9808 Meech ave., Cleveland 5* •

SERVIRON

An industrial coating which may be applied either to wet or dry surfaces is Serviron Dampcoating. It is applied by brushing and wiping or by spray, and is said to remain in a damp plastic condition permanently. (A companion product, Vascote, has practically the same



qualities, except that it hardens to a semidry state.) Serviron can be rubbed into the metal and a coat of paint applied over it, if that is desirable. Or it can simply be placed on the surface to be protected and left there.

One railroad is using it to protect steel materials stored outdoors. It also is being used for coating the inside of the steel sheets

of box car sides and ends. Dining car understructures also have been coated with Serviron, apparently with good results.

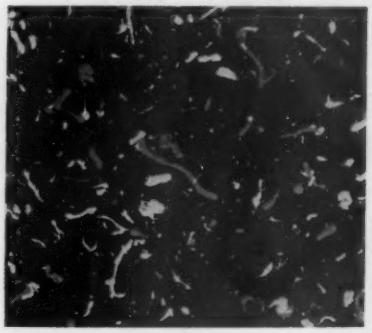
Serviron is supplied as 100% active coating material, without any diluents, thinners, solvents or water in any form. The desired thickness can be applied as one coat. It should be applied to steel surfaces after mill scale or heavy rust has been removed. *Xzit Chemical Company, Dept. RA, 158 14th st., Hoboken, N. J.* •

"POLKA DOT" PAINT

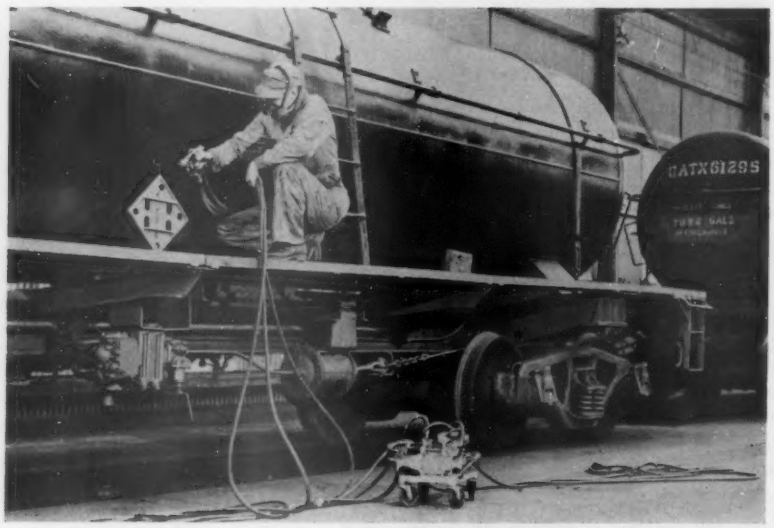
Zolatone, a new coating which combines several colors in a single spray application, has been used for many purposes, including decoration of lounge cars of one large western railroad. While it appears to be a homogeneous fluid, Zolatone in reality is a collection of individual particles.

Each particle is enclosed in a plastic sac which prevents it from blending with the others. When the fluid is sprayed onto a hard surface the sac breaks and merges with its contents to create a film whose properties are rather unusual.

Zolatone is not affected by body oils, acids, automotive lubricants and gasoline, its manufacturer states. Its non-static quality makes it dirt and grease repellent. It is said to be



completely washable, and reportedly any dry-cleaning agent, including paint thinner, can be used on it with safety. According to the maker, Zolatone produces a coat five or six times as thick as conventional paints. *Paramount Paint & Lacquer Co., Dept. RA, 3411 E. 15th st., Los Angeles* •



ELECTRIC HEATER

The number of railroads, car builders and private car lines using the hot spray painting process is increasing rapidly. One of the main advantages of this method of painting is that the electric heaters which keep the paint at a constant temperature maintain is viscosity. The Circaflo electric heater is rated at 20 gal per hr. It can use hose lengths up to 40 ft. A simple centrifugal pump pushes paint from heater to the gun. *Spee-Flo Company, Dept. RA, 720 Polk ave., Houston, Tex.* •

RAPID ASPHALT PAINT

This product is designed for use on almost any surface material exposed to abrasion, weather or chemical attack. It is furnished in one grade, ready for application by brush or spray. Where the paint is exposed to acids or alkalis three coats are desirable. When used on structural steel, sheet or plate iron, a prime coat of red lead is recommended. Rapid Asphalt is widely used in electrical installations, its manufacturer reports, due to the fact that it is a non-conductor. It also is suitable for coating the interiors of refrigerator cars, since reportedly none of its ingredients affects foodstuffs adversely. The product is said to withstand temperatures up to 212 deg F, to dry hard within 2-3 hours, and to be ready for a second coat over the first within six hours. *Ruberoid Company, Dept. RA, 500 Fifth ave., New York 36* •

AUTOMOTIVE FINISHES

Epon synthetic finish is said to be especially suitable for use on covered hopper cars. After the cars have been prepared for painting, one coat of Epon primer is applied, followed an hour later by a mist coat of the Epon finish, sprayed horizontally. Immediately after this mist coat is sprayed on the car, a full coat of the enamel is applied by spraying vertically. Two hours later the cars may be stenciled. This system is said to develop the proper paint film for resisting alkalis.

This manufacturer also supplies chromatized primers, finishes whose base is phenolic resin, and synthetic lacquer resisting primers. This company's products can be applied by either the hot or cold spray processes. Its quick drying finishes, it is said, have made it possible for one railroad to improve production in its paint shop by 200%. *Automotive Finishes, Inc., Dept. RA, P.O. Box 457, NW Station, Detroit 4* •

FERROLASTIC RESISTANT

Ferrolastic Chemical Resistant Coatings are synthetic finishes made with an epoxy resin base. For five years, their manufacturer states, they have been used by a number of railroads and private car lines on covered hoppers and tank cars. Ferrolastic is said to have exceptional resistance to both acids and alkalis,

and at the same time to be highly resistant to abrasion such as a hopper gets when consignees use sledges to pound the car to start the contents flowing. Ferrolastic also is being used to protect switch rods from brine drippings. The coatings reportedly can be applied in either cold or warm weather. They adhere to most metal surfaces and to old finishes. They may be applied by either the hot or cold spray methods. Two coats are recommended as minimum when applied to clean, bare metal. Normally, three coats applied with normal air dry will produce 4-5 mils film thickness. *McDougall-Butler Company, Dept. RA, 2929 Main st., Buffalo 14, N. Y.* •

PHENOLINE

This product basically is a modified phenolic two-package coating (catalyst and basic resin). It can be applied to steel, wood, plastics, carbon, Transite and concrete by means of brushes, sprays or trowels. It reportedly offers protection against most organic solvents, caustic soda, dilute acids and boiling water and is

unaffected by quick temperature changes from 240 deg to 0 deg F.

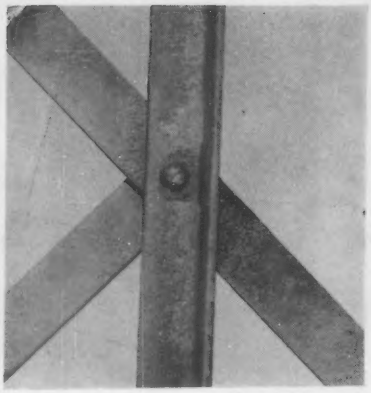
One railroad, the manufacturer reports, has Phenoline under test as a coating for interiors and exteriors of hopper cars used in salt traffic. Several railroads are using Phenoline to protect concrete at passenger car washing stations, where the acid in the cleaning compounds eats away the concrete. The accompanying picture shows how a patch formed of a ⅛-in. coating of Phenoline stood up under a year's exposure to acid at such a car washing station. The effect of the acid on the uncoated concrete during this period is evident. *Carboline Company, Dept. RA, 331 Thornton ave., St. Louis 19.* •

PENETROL RUST INHIBITOR

Penetrol is a clear air-drying oil, used mainly as an additive to paints for preserving both wood and metal surfaces and structures. Penetrol is said to increase the penetration of paints into rusted surfaces, a prime requisite in stopping rust action. When wood is covered with paint to which Penetrol has been added, the additive goes deep into the wood, taking the paint with it. This, the manufacturer states, assures a better bonding of the follow-up coats.

The main railroad use of Penetrol, its manufacturer points out, is in paints used on structures where surface preparation cannot be done and in places where paint can't reach, as on joints or steel connections on bridges.

Penetrol reportedly can be used with any paint or primer which



has an oil, varnish or asphalt base, for inside or outside applications. It is an "all-weather" paint extender which adds to the permanent volume of paint because it is not lost through evaporation.—*Flood Company, Dept. RA, Hudson, Ohio* •

SEAL-KOTE

Seal-Kote is a vinyl plastic paint for preserving and improving the appearance of a wide range of exterior surfaces. It is said to be suitable for coating cement and cinder blocks, concrete, brick, new and old wood, asbestos shingles, stucco or asphalt. It can be applied with roller, brush or spray gun. Seal-Kote dries in 1-2 hr, its manufacturer states.

An important property is its reported ability to stop water penetration when applied over damp surfaces.

The paint is reported to permit free and constant "breathing" through its plastic film, thus releasing all internal moisture. As a result, it is said Seal-Kote does not bubble, blister, chip or peel. The product is available in a wide variety of colors. One coat is said to suffice on most jobs. *Wooster Seal-Kote*

Company, Dept. RA, Wooster, Ohio •

TAME RUST

Tame rust paints are designed to retard rust on old or new metal surfaces, either exterior or interior. Backbone of the line is a special primer, oxide red in color, for application before the finish coat. Used this way it serves as a rust inhibitor and a base coat. On new metal surfaces it can be used as furnished by the manufacturer. For best results on a rusted surface, according to the maker, the primer should be thinned 25% with Tame Rust primer reducer. The reducer is said to contain an oil which will absorb the rusty surface. The finish coat is available in yellow, orange, green, red, gray and black. *O'Brien Corporation, Dept. RA, South Bend 21, Ind.* •

PITTSBURGH & LAKE ERIE.—Donald B. Fleming, general superintendent, Pittsburgh, Pa., named general manager.

(Continued from page 13)

headquarters at Huntington, W. Va. His former position of assistant to general manager at Richmond has been abolished. **G. C. Phillips,** whose former position of superintendent, passenger transportation has been abolished, will remain at Richmond at his new post of superintendent, transportation. **R. N. Lynch** has been appointed superintendent, Cincinnati-Chicago division, Covington, Ky., succeeding **W. K. Weaver, Jr.,** whose promotion to assistant to vice-president operations was reported in Railway Age, July 9, p. 16. **B. P. Knight** appointed assistant superintendent, Clifton Forge, Va., to succeed Mr. Lynch. **T. W. Grose,** trainmaster at Handley, W. Va., transferred to St. Albans, W. Va., succeeding Mr. Knight. **F. R. Lutz,** assistant trainmaster, Huntington, named trainmaster at Handley.

Superintendents of station services and freight claim prevention on both the former Northern and Southern regions will report to the general superintendent, transportation at Richmond. The superintendent of police on the former Northern region and the chief special agent on the former Southern region will report to the regional managers on matters pertaining to their respective territories, while coverage of the system will continue as formerly.

M. J. Hubbard, regional assistant chief engineer, Richmond, appointed assistant chief engineer—system, Huntington; **H. W. Kellogg,** engineer of track, Detroit, appointed assistant chief engineer—maintenance and construction, with headquarters at Richmond, and **C. B. Porter,** assistant to vice-president — construction and maintenance at Huntington, appointed assistant chief engineer—maintenance and construction, with headquarters at Detroit. **Carl S. Dennis** and **John F. Walser** appointed fuel service engineers at Richmond and Greensboro, N.C., respectively.

Theodore R. Horton, commercial agent, Charleston, W. Va., appointed general agent at Greenville, S.C., succeeding **R. J. Rappold,** named commercial agent at Charleston. **L. W. Wood** commercial agent, Grand Rapids, Mich., appointed general agent there, succeeding **G. Arthur Jones,** resigned.

CHICAGO & EASTERN ILLINOIS.—W. H. Peake, general agent, Pittsburgh, promoted to freight traffic manager, Chicago, succeeding **Gene Cermak,** who has joined the Chicago & North Western. **W. C. Cottingham,** general agent, Washington, D.C., replaces Mr. Peake, and in turn is replaced by **John Lamon,** transferred from Dallas, Tex. **James Wiggins,** commercial agent, Kansas City, Mo., named to succeed Mr. Lamon.

R. M. McKee, general coal agent, promoted to assistant coal traffic manager-rates, and **R. E. Miller,** coal freight agent, advanced to assistant coal traffic manager-sales, both at Chicago.

DULUTH, SOUTH SHORE & ATLANTIC.—The position of general western freight agent at Seattle, Wash., has been abolished. **Ross O. Hambly,** general agent, is now in charge of the Seattle agency.

R. R. Eldredge, general solicitor, retired from that post but will continue in general practice in Marquette, Mich.

NICKEL PLATE.—C. C. Cowden, assistant superintendent, car department, promoted to superintendent

C. C. Cowden

of that department at Cleveland, succeeding **Robert Schey,** general superintendent, car department, resigned.

Frank J. Berry, vice-president, traffic at St. Paul, retires August 31.

NORFOLK & WESTERN.—W. A. Noell resumes duty as superintendent, Norfolk division, at Crewe, Va., terminating the temporary assignment of **W. S. Clement.**

C. E. Hash, advertising assistant, named assistant advertising manager and **James F. DeHart** and **S. S. Riley** appointed advertising assistants. **T. P. Vannoy** named assistant editor, Norfolk & Western Magazine.

NORFOLK SOUTHERN.—W. C. Lewis, division freight agent, Raleigh, N.C., promoted to assistant general freight agent there and his former position abolished.

NORTHERN PACIFIC.—R. E. McCourtney, general agent at Butte, Mont., promoted to assistant general freight agent at St. Paul, succeeding **John J. O'Connor,** retired. **W. J. Galt,** traveling freight and passenger agent at Tacoma, Wash., succeeds Mr. McCourtney. **G. T. Flynn,** commercial agent at St. Paul, named general agent, freight department there.

William C. Havens, district passenger agent, New York, named general agent, passenger department, at that point, succeeding **Verne L. Bedell,** retired.

Robert D. Bone, western freight traffic manager in charge of sales and service, Seattle, appointed freight traffic manager, St. Paul, to succeed **L. R. Challoner,** retired. Mr. Bone's successor is **Ober A. Kobs,** general freight agent, Seattle, who in turn is succeeded by **E. M. Stevenson,** assistant general freight and passenger agent at Tacoma, Wash. **J. D. Nankivell,** general agent, Everett, Wash. replaces Mr. Stevenson, and in turn is succeeded by **C. E. Moehring,** foreign freight agent at Portland. **C. A. Taylor,** city freight and passenger agent at Portland, succeeds Mr. Moehring.

PENNSYLVANIA. — John H. Pfaffenberger appointed supervisor of stations, Northwestern Region.

Frederick J. Hoberg, assistant engineer, Northwestern Region at Chicago, retired July 1.

John C. Kocian, office manager, freight traffic manager's office, Northwestern Region, promoted to assistant district sales manager at Chicago. His successor is **James A. Brown,** freight representative at Chicago.

Glenn F. Laser, assistant supervisor of communications and signals, Chesapeake Region at Baltimore, Md., appointed supervisor of communications and signals, Buckeye Region at Richmond, Ind., succeeding **G. S. Willard,** resigned.

Marcus M. Kim, chief examiner, personnel, Lake Region at Cleveland, promoted to supervisor—labor relations, Northwestern Region at Chicago.

P. D. Holt, assistant shop foreman, Northwestern Region at Chicago, appointed supervisor diesel equipment, Northwestern Region there, succeeding **O. F. Opatz,** retired.

PIEDMONT & NORTHERN.—M. E. Compton appointed district freight agent, Greenville, S.C.

PITTSBURGH & WEST VIRGINIA.—Morris E. Mayes, director

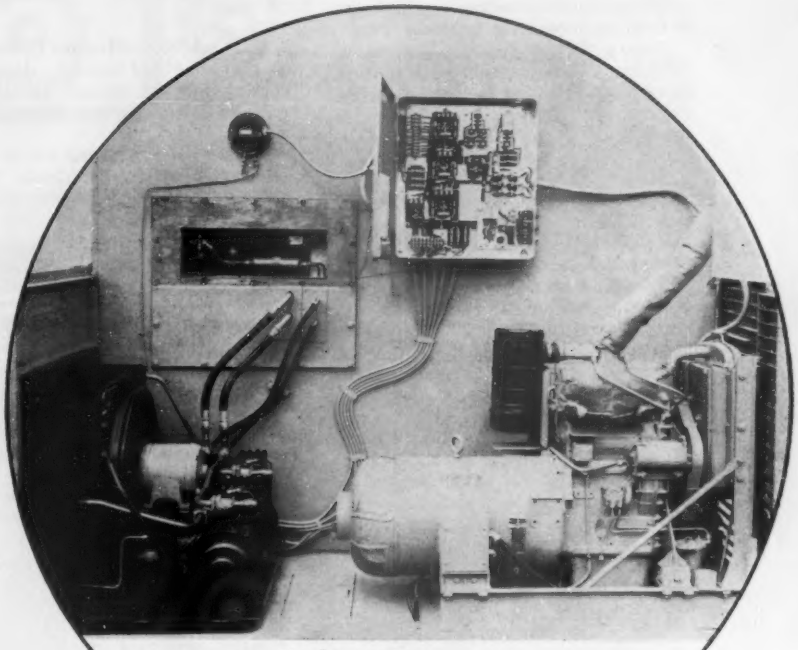
(Continued on page 36)

ONE THOUSAND STRONG!

Yes, 1,000 STRONG is the pooled fleet of mechanical refrigerator cars operated by Fruit Growers Express Co., Western Fruit Express Co., and Burlington Refrigerator Express Co.—the result of more than 20 years' pioneering and research to provide shippers and consumers zero-safe low-cost rail transportation . . .

Control of the mechanical refrigeration system is completely automatic . . . These dependable and versatile mechanical refrigerator cars provide thermostatically controlled refrigeration or heating—from zero to 70° F . . . They are backed up by an experienced, fully equipped, coast-to-coast service organization to insure top-notch performance . . .

Since the first of these mechanical cars was placed in general service by our Companies on February 25, 1949, their pooled fleet of 1,000—with an average age of less than two years—has transported more than one million tons of commodities—or more than 31,000 carloads—and the fleet has traveled more than 56 million car miles under load!



Machinery Compartment
All Purpose Cars with Dual Refrigeration Unit

Pioneers in Mechanical Refrigeration in Refrigerator Cars

FRUIT GROWERS EXPRESS COMPANY
WESTERN FRUIT EXPRESS COMPANY
BURLINGTON REFRIGERATOR EXPRESS COMPANY

1101 Vermont Avenue **Washington 5, D. C.**

E. W. Torian

F. C. Nelson

Benjamin F. Biaggini, Jr.

Harry L. Crawford

(Continued from page 34)

of personnel, Pittsburgh, Pa., named assistant to vice-president; will assist in revising accounting methods.

Nancy Noyes appointed editor of "Hi-Line," P&WV employee magazine, succeeding **William A. Wheeler,** appointed labor relations clerk at Rook, Pa.

ROCK ISLAND.—R. B. Smith, manager of the tie and timber department since June, appointed buyer—forest products, Chicago, and his former title abolished.

H. G. Dennis, superintendent, Southern division at El Reno, Okla., named assistant general manager of the road's second district there, succeeding **J. H. Lloyd,** appointed general manager of the **Alaska** at Anchorage. Mr. Dennis' successor is **J. C. Cartland,** transferred from the Western division at Fairbury, Neb., who in turn is replaced by **D. J. Smith,** assistant superintendent at Inver Grove, Minn. **W. F. Thompson,** trainmaster at Des Moines, Iowa, replaces Mr. Smith, and in turn is replaced by **R. S. Randolph,** transferred from Silvis, Ill.

RUTLAND.—Heaton L. Bullock, of the sales and services department at Rutland, Vt., named district sales representative, Western region, Chicago.

Ralph L. Andreas, vice-president, sales and service, Rutland, Vt., resigned, effective September 21, to become traffic manager, Standard Oil Company of Indiana at Chicago, effective October 1.

SOUTHERN PACIFIC. — Benjamin F. Biaggini, Jr., vice-president of SP's line in Texas and Louisiana, with headquarters at Houston, elected to the newly created position of vice-president — executive department of the SP at San Francisco, effective August 1. Mr. Biaggini's successor is **E. W. Torian,** assistant to executive vice-president, Texas and Louisiana lines, who in turn is replaced by **B. M. Stephens, Jr.,** assistant chief engineer, Houston.

F. C. Nelson, formerly on special assignment as freight traffic manager of rates and divisions, Chicago, appointed assistant vice-president of system freight traffic, San Francisco.

R. A. Miller, superintendent, Sacramento division, Sacramento, Cal., transferred to the Coast division at San Francisco, to succeed **J. J. Jordan,** who retired July 31. Mr. Miller's successor is **V. E. Anderson,** superintendent, Salt Lake division, Ogden, Utah, who in turn is replaced by **M. A. McIntyre,** assistant superintendent, Los Angeles division, Los Angeles. **A. G. Bays,** assistant superintendent, San Joaquin division, Bakersfield, Cal., replaces Mr. McIntyre. **L. W. Garrison,** trainmaster at Portland, succeeds Mr. Bays, and in turn is succeeded by **D. K. McNear,** transferred from Tucumcari, N. M. **R. V. Currier** succeeds Mr. McNear.

F. E. Whitcher, assistant general freight and passenger agent, Phoenix, Ariz., appointed general freight and passenger agent there, succeeding **L. H. Trimble,** retired.

Harold J. Richardson, assistant general agent passenger traffic-public relations, promoted to general agent passenger traffic-public relations at Chicago, succeeding **Clarence E. Darkus,** who retired July 31.

UNION PACIFIC. — Harry L. Crawford, assistant superintendent of transportation at Portland, Ore., appointed superintendent of transportation there, succeeding **H. M. Turner,** retired. **Clair A. Thompson,** special representative, Traffic Department, Seattle, named assistant to general manager, Northwestern district, Portland, to succeed **Roy C. Soule,** retired. **Frank S. Bednar** appointed general agent, Salina, Kan.

An expanded safety and courtesy program has been announced and the following representatives named: **W. F. Griffin,** Eastern district at Omaha; **D. F. Hueneke,** Eastern district, Cheyenne; **C. W. Carter,** South-Central district, Salt Lake City; and **R. L. Hanson,** Northwestern district, Pocatello, Ida. Present district safety and courtesy representatives appointed superintendents of safety and courtesy for the road's three districts and existing safety and courtesy representative positions changed to assistant superintendent of safety and courtesy.

UPPER MERION & PLYMOUTH. — Robert W. Chapin, superintendent of operations, Conshohocken, Pa., elected president and chief executive officer, succeeding **Harlan P. Ross,** elected chairman of the board.

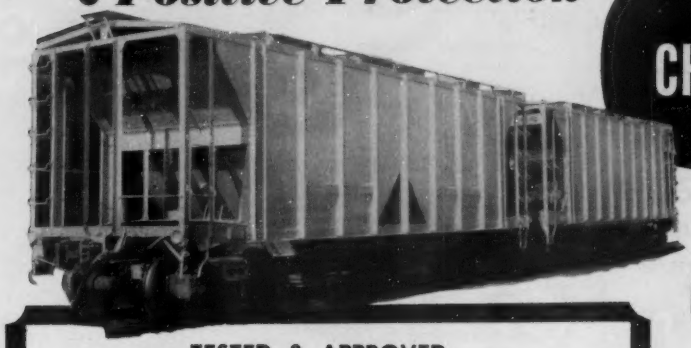
WABASH. — H. C. Kniebusch, industrial agent, named general industrial agent, St. Louis, and his former position abolished.

SOUTHERN. — Henry L. Walker (above), general solicitor, elected vice-president and general counsel, at Washington, D.C., succeeding Sidney S. Alderman, who retires September 1 to return to general law practice

OBITUARY

William J. McGarry, 76, railroad operating officer and former manager of the Ore and Coal Exchange in Cleveland, died August 21 at Washington, D.C., after a brief illness.

• *Low Cost,*
• *Positive Protection*



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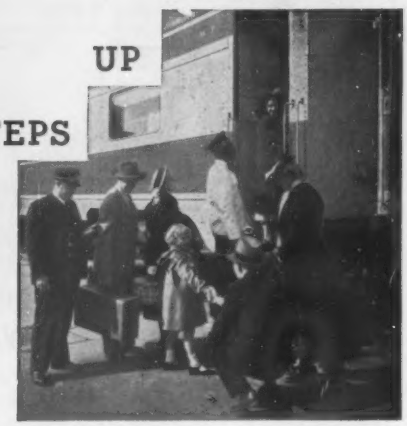

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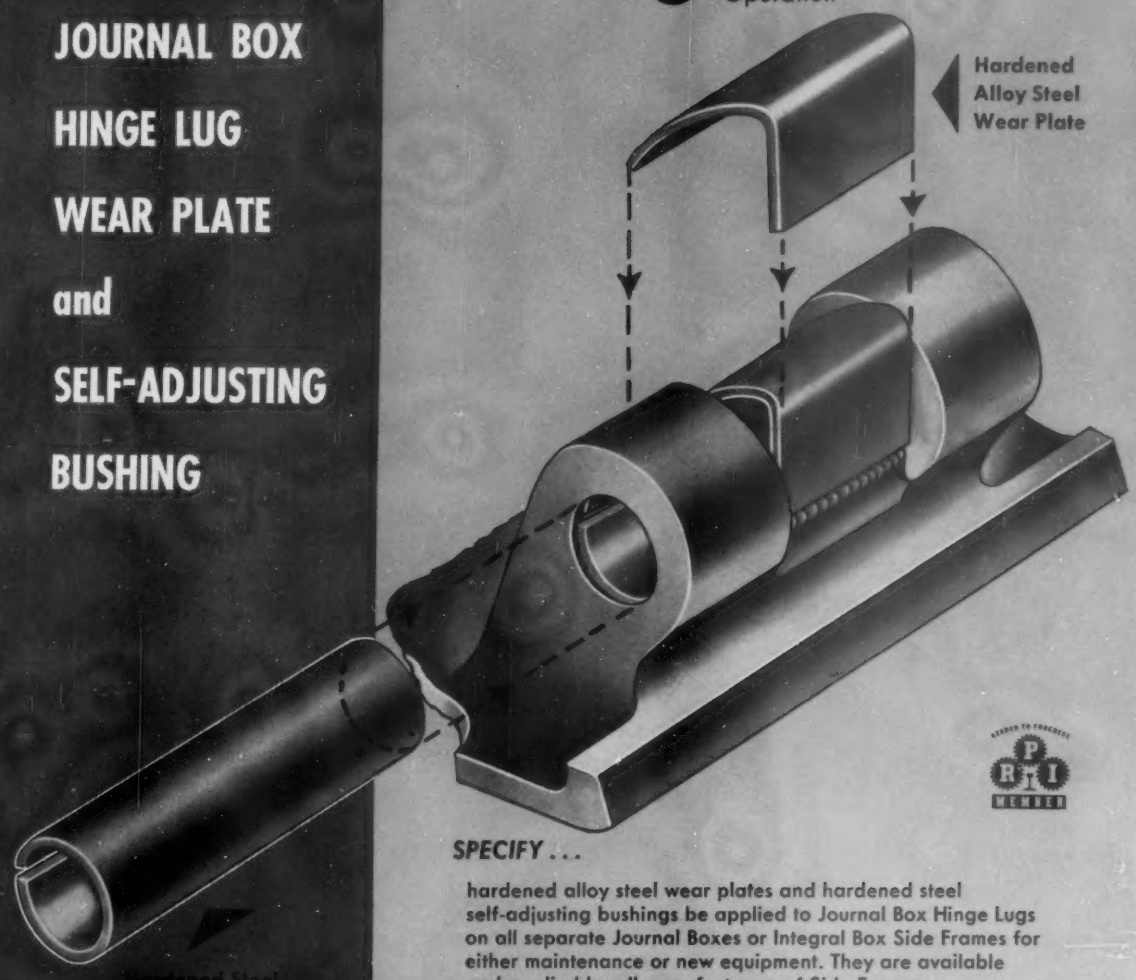

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YOU put car journals on roller bearings for only two reasons: to end the hot box problem and to cut operating and maintenance costs to a minimum. Timken® tapered roller bearings are the only bearings that do both. It's the taper. Here's why:

1. NO LATERAL MOVEMENT WITHIN THE BEARING. Timken bearings *roll* the load. They never slide it. There's no scuffing of rollers and races to shorten bearing life. No lateral movement to force lubricant through the seal, out of the journal box, and onto the rails to cause costly diesel locomotive wheel slip. You save the cost of lost lubricant, plus its replacement cost.

2. POSITIVE ROLLER ALIGNMENT. The taper in Timken bearings holds ends of rollers snug against the cone rib, where wide area contact keeps them properly aligned. There's no skewing of rollers to upset full line contact.

Unlike costly devices that merely act as "crutches" in an attempt to improve friction bearing performance, Timken bearings do away with the *cause* of hot boxes —the friction bearing itself. What's more, they bring maximum operating and maintenance savings. Fact is, the new heavy-duty type AP (All-Purpose) Timken journal bearing assembly will go three years without adding lubricant. Lubricant cost is cut as much as 95%. Terminal bearing inspection time is reduced 90%.

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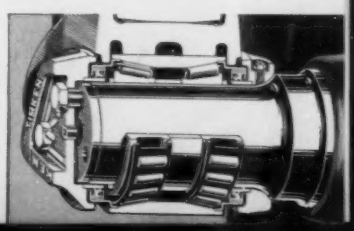
7 out of 10 roller bearing freight cars roll on TIMKEN tapered roller bearings

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